Famous Photographers Course

Famous Photographers Course
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Lesson

17

Editorial illustration

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The art of editorial illustration

In shooting a photographic illustration for an article or story you often have the chance to give your imagination wide scope. Yours is the freedom–and the challenging responsibility–to create the picture you have in your mind's eye. By combining your picture elements–props, background, models, and costumes–you produce a small world of your own making, a world whose boundaries are the four edges of your viewfinder, and where you are the master of everything that takes place.

This freedom is exhilarating, and creating editorial illustrations can be one of the most enjoyable kinds of photography. But it also demands skill and discipline–skill to combine the elements in an effective composition, and discipline to see that your picture fulfills its intended purpose.

The main purpose of an editorial illustration usually is to tell something about the story or article it illustrates–by establishing mood, symbolizing the theme, or showing an important incident or personality. But a good editorial illustration does other important things, too. It attracts the viewer's attention–it's the bait that lures him to read the text. Also, the quality and style of a magazine's photographic illustrations help set its tone, adding visual excitement.

Doing a lot with a little

If you apply the principles we explain in this lesson, you can shoot successful illustrations with modest equipment and facilities. As we'll demonstrate, the best illustrations are frequently the simplest. Although Bert Stern, your principal guide for this lesson, and other top photographers may sometimes use many models and elaborate sets, they also can perform wonders with just one or two models, a roll of white seamless paper, and a few imaginative props. Taste, style, and fresh ideas may contribute more than tons of equipment.

The camera you now use is probably satisfactory for most editorial illustrations. Although a view camera sometimes may be desirable for this kind of work, most of the illustrations shown in this lesson were taken with roll-film or 35-mm cameras.

Nor do you usually need elaborate lighting equipment. Illustrations can be shot by available light, bounce flash, window light, photofloods, and other types of light. However, if you begin to specialize in studio illustrations you'll probably want to acquire a good professional set of lights. Three or four studio electronic-flash units can be particularly useful because of their action-stopping power and because their daylight color quality lets you shoot on daylight film without filtering.

Editorial illustrations sometimes are best shot "on location," in real-life surroundings. But more often they are taken in a studio, where the photographer has more complete control over his lighting and backgrounds. We do not expect you, as a student, to have a professional studio at your disposal, but you will need to find a bit more working space than is required for portraits or still-life pictures. You need room to back away far enough so you can photograph two or three people full figure if necessary, and to include a table, a chair, or other fairly large props. If your living room isn't big enough, perhaps you can use a basement or garage. [A two-car garage provides just about ideal space for anything but the largest of productions, and usually offers the advantage of overhead beams for attaching lights, hanging rolls of paper, etc.]

The question of models

Finding the right models is an important preliminary to making most editorial illustrations. If you are working on an assignment, a paid professional generally is your wisest choice. Get the best you possibly can afford, because the model can make or break your picture. However, if you live in an area where professional models aren't readily available, or you are shooting for your own pleasure and don't want to spend the money, then you'll need to call on nonprofessionals.

Just about every community has attractive, interesting people who can serve as models for editorial illustrations. If you can find someone with a little modeling experience, or a background in dramatics or ballet, so much the better. But don't use just anybody who's handy. Try to find the right type–in terms of age and physical appearance–to fit the needs of your picture. And it's essential that you give your models proper direction, infusing them with the feelings or attitudes you want them to express in the photograph. We'll have more to say about this basic subject in this and later lessons.

In starting to work on an editorial illustration, it's often a good idea to begin with a rough sketch to help clarify your thinking. This sketch doesn't have to be detailed–just a few lines indicating the position of the most important elements usually is enough. If you're not satisfied with your first arrangement, try another. A simple compositional plan like this can save you time and effort when you begin to work with models and props.

Creating an editorial illustration from the ground up is one of the most exciting and rewarding things you can do with a camera. This may well be an area of photography that you will want to specialize in professionally. But even if you do it only for this Course or for your own pleasure, shooting editorial illustrations can stimulate your imagination and enlarge your skill in expressing yourself in the picture language of photography.

[*Facing page*] A good editorial illustration is an eye-catching visual expression of an idea, as in this delightful picture by Bert Stern, taken to illustrate the line: "If I had a million dollars, I'd have lots and lots of babies." In this lesson we demonstrate ways you can improve your ability to express ideas visually, and show you how to use models, props, settings, and lighting to produce the kind of photographic illustrations that picture editors want.
[Courtesy *Vogue*, ©1962, Condé Nast Publications, Inc.]

What makes a good editorial illustration?

Aptness of idea, clarity of expression, and an appropriate style—these are qualities indispensable to a good editorial illustration. Before we take up the specific methods and skills you need in editorial shooting, let's examine these three qualities in detail. Understanding them can help you plan and make better pictures.

The picture should express a pertinent idea

As we've emphasized throughout this Course, every good picture conveys some thought or idea; it has a reason for being. In editorial illustration, it isn't enough to create a striking or beautiful picture. The picture must *say something pertinent* about the text or article it illustrates. It must contribute to the story.

This may seem an obvious point, but sometimes photographers tend to forget it. You can become so involved in the fascinating details of creating and shooting a picture, or be so carried away by some special effect, that you lose sight of the picture's purpose. That's why Stern and other top photographers consider the preliminary thinking and planning they do as important as any other part of making the picture. It insures that they're *on the right track* to begin with.

Before starting to work on any illustration, ask yourself these basic questions: What is the story, article, or feature about? What aspect or aspects of it should I show in my photograph? What point do I want to make? Then be sure to follow through. Make the picture really live up to the idea you start with.

For example, suppose you were assigned by a medical journal to do an illustration for an article on the problems of overweight in children. You should first read the article and discuss it with the editor. Perhaps the author makes the point that being fat can make a child feel rejected. Obviously, your illustration wouldn't convey a pertinent idea if you showed a fat but laughing child. You would need to set up a picture that suggests the loneliness an overweight child feels. You might show the child standing alone in a playground, with other children playing in the distance, or sitting by a window and looking sadly out at other children having fun.

The picture's meaning must be clear

Once you know what you want to say in your picture, your problem becomes one of finding a clear, strong, interesting way to say it. Remember, your illustration has to compete with many others. A magazine or newspaper reader may skim through a publication very fast. Your picture must get its meaning across quickly.

Composition is one powerful tool you have for directing the viewer's attention to the important things in your picture. In general, avoid cluttered, confusing pictures that lack strong centers of interest. Use the principles of picture area, arrangement, lines of direction, and value contrast to make the essential story-telling details stand out clearly. Backgrounds should not interfere or distract.

Lighting is a second important tool. Use it to reinforce the feeling you project in your picture. By your choice of lighting you can make the mood of your photograph bright and happy, dark and mysterious, soft and gentle. You can also throw more light on the things you want to emphasize, and subdue others. As we demonstrated in the composition and lighting lessons, you can use lighting to bring out the volume of solid forms and the texture of surfaces, if these are important.

Use selective focus to make one object stand out strongly, or great depth of field if it's important that everything in the picture be sharp. Employ every means you know to get your message across.

The picture's style should be appropriate for the audience

When your photograph is still in the planning stage, ask yourself: "Who is going to look at my picture?" Knowing the makeup of the audience helps determine the way you treat the picture. It can guide you in choosing a model, selecting props and background—and even in lighting and composing the photograph.

Magazines and other publications usually have strong ideas about who their readers are and the style and treatment they want. For example, a national Sunday supplement with a mass circulation may insist on a bright, happy mood and attractive, but not too sophisticated-looking models. A man's magazine may want a tough, realistic quality, preferring pictures made on location by available light. A high-fashion publication may look for sophisticated humor and fantasy. A picture magazine may want eye-stopping shots that jolt the viewer with some unexpected quality.

In shooting an editorial illustration, keep the audience [and the editor's idea of that audience] in mind. This does not mean you should slavishly imitate work that has previously been done for that publication. It does mean you should strive to achieve an appropriate style and mood.

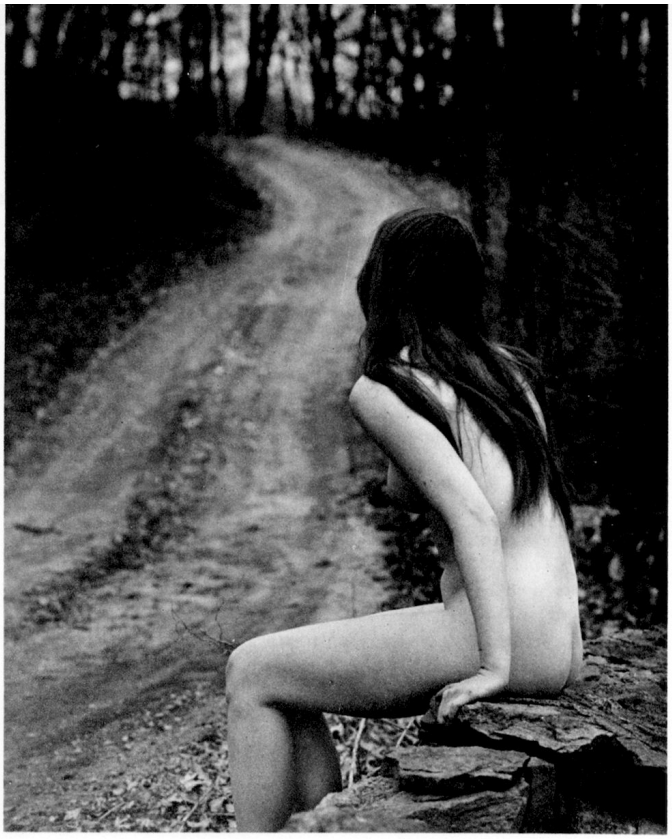
The accompanying pictures suggest something of the range of editorial illustrations. They include realism, sophisticated fantasy, symbolism, and humor. Note that they all share the qualities we've discussed—aptness, clarity, and appropriate style. If you can learn to achieve these qualities in the illustrations you create, you are well on your way to succeeding in this exciting field.

Here the effect intended is sophisticated fantasy. The photographers, Leombruno-Bodi, were assigned by a high-fashion magazine to shoot a series of illustrations involving pretty models and animals that symbolized the types of men they might date. The caption line that ran with this picture was: "I keep wondering if he thinks I'm a grape."

The small table, with its tasseled tablecloth, the elegant chairs, and the cups and espresso machine, suggest a chic restaurant—an idea further carried out by the long-haired violinist. The model's pose and expression indicate her doubtful state of mind—and the little fox was caught at just the right moment, with what appears to be a satisfied grin. Preposterous as the situation is, the photographers got their idea across clearly and sharply. For the magazine's audience and the story idea, the effect is just right.

[Courtesy *Vogue*, ©1960, Condé Nast Publications, Inc.]

A single detail sometimes can make a powerful symbol to express an editorial idea. For example, to vividly convey the concept of old age for a magazine article on the subject, Carl Mydans moved in for a close-up of gnarled hands holding a cane handle. The photograph was selected to run on the magazine's cover. The picture sums up the editorial theme in a strong, simple image with realism and impact.
[Courtesy *Life* magazine, ©Time, Inc.]



Sometimes an editorial illustration can express a title, as in this example. Philippe Halsman was asked to shoot a picture for the jacket of Alberto Moravia's book *The Wayward Wife*. When he heard the title, a picture flashed through his mind of a nude girl sitting by a lonely road. With the publisher's approval, he made this shot. The picture is symbolic rather than literal because he did not show the girl's face and he softened and diffused the background. The photograph was so effective that it drew more comment than the book.

Halsman was assigned to shoot a series of pictures of the French pantomimist Jacques Tati to illustrate a magazine article about him. The photographer wanted lots of action that would reveal Tati's talent for ludicrous gestures. He used a plain white background to show the expressive outline of Tati's figure clearly, and had the comedian go through one of his routines–as an inept badminton player. Electronic flash stopped the action sharply. This stylized set of editorial pictures aptly demonstrates Tati's ability as a performer.

How to compose with the human figure

Many editorial illustrations feature people–people expressing emotion, reacting to each other or their situation, or engaged in some activity. *Posing* people for an illustration calls for a special kind of skill–a skill important not only in editorial illustration but also in advertising and fashion photography as well.

In directing actions and poses, there are two things you must pay special attention to. The first is *composition.* Always look at figures in a compositional way–as shapes of a certain size and value, with outlines that help lead the viewer's eye around the picture. And you should also be aware of the *emotional, story-telling effect* of gestures and facial expressions. They offer you an important means of getting the viewer to understand your picture idea and respond to it.

It's not enough to have your models mechanically strike a pose in front of your camera. The result may look stiff and contrived. Instead, try to get life and action into the figures you show. Get your models interested and involved, so they experience real emotion. Then try to catch actions, gestures, and expressions that make a clear, sharp statement about the situation and the feelings of the people involved.

It's helpful if your subject–whether a professional model or an amateur–has had some dramatic experience. But imaginative direction on your part also is vital. For example, rather than flatly telling a model to "look frightened," you might abruptly shout: "Look out! You're going to be hit by a car!" By your words and manner you can make your subject feel he is hot, cold, happy, or sad, or bring out any other feeling you want. Appropriate background music from a record player in your studio also can set a mood.

Study the accompanying photographs shot for this lesson by Bert Stern. See how he communicates a variety of emotions and meanings with very simple elements–a single figure against a bare background. His goal was to get "shapes that say something," and that should be your goal, too, when using human beings in your pictures.

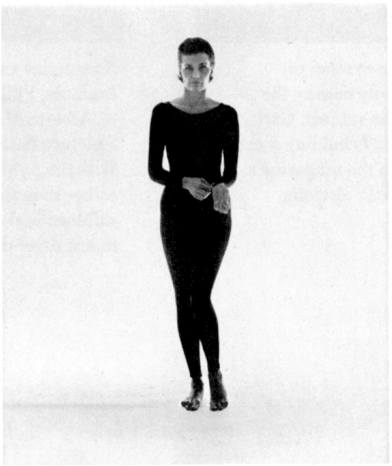
To sharpen your awareness of the silent language of gestures, poses, and expressions, study other forms of art. Paintings and sculptures of the figure are a rich source of ideas. You can learn much about posing from classical ballet and modern interpretive dance. Watching masters of pantomime in silent movies also can be helpful. And close observation of how people move and gesticulate in real-life situations will also add to your knowledge.

The figure can express many emotions

The figure is a mobile form that can bend, lean, curl up, stretch out, twist, or assume an almost unlimited variety of attitudes and gestures. Many of these are associated with different moods or emotions–familiar examples are the droop of weariness or the raising of the hands in surprise. The good photographer watches for these significant gestures and uses them in his pictures to help communicate ideas and moods.

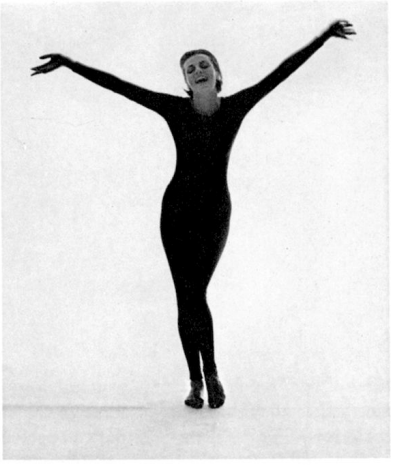
The photographs on these pages show some of the emotions a single figure can convey by gesture alone, or gesture plus facial expression. Each pose has almost unlimited variations. We do not intend that you copy any of these literally. But they can help you direct a model and recognize vivid, expressive gestures that serve your purpose.

In real life, a person's bodily action may not always express his emotions. For example, he might be slumped in apparent dejection while actually quite happy. We do not notice these discrepancies because the person's words may reveal his feelings, or because in a moment he may move and assume a more appropriate attitude. However, in a photograph accidental or contradictory gestures are confusing. *The gesture you capture must be the right one*–a clear expression of the emotion you want to get across to the viewer.

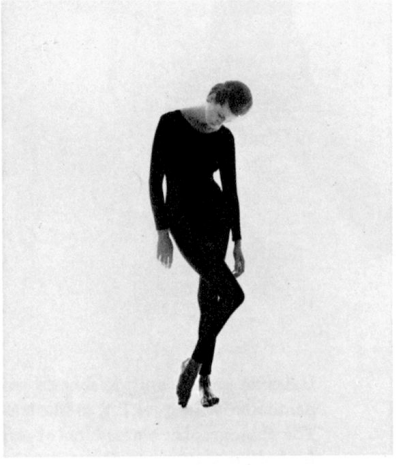


Here's a figure standing in a relaxed position. It expresses a feeling of passiveness–of waiting.

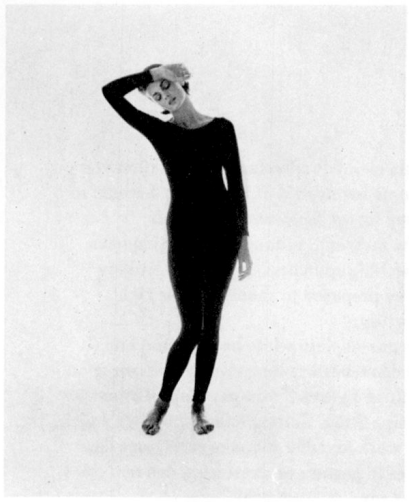
Simply raising the arm creates a new shape –and a new meaning. This gesture is a friendly one of greeting or farewell.



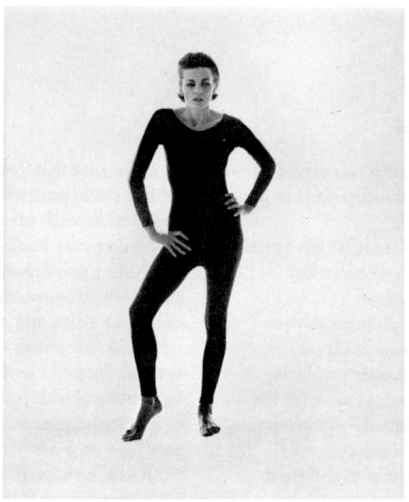
Here the outstretched arms form a shape that radiates exuberance and joy. The expression points up the emotion.



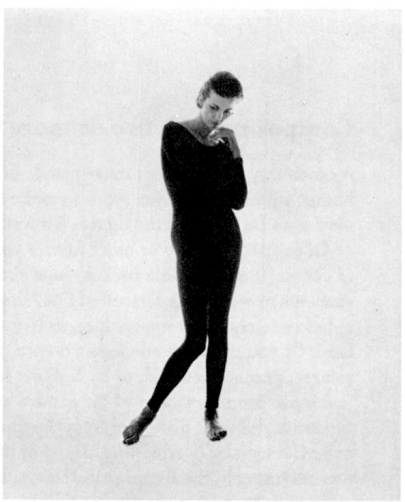
In direct contrast to the figure at left, the sagging, drooping lines of this figure suggest sadness, dejection, or fatigue.



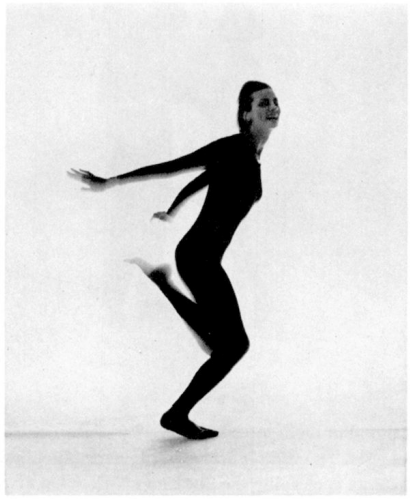
Weariness or sorrow is vividly expressed by this gesture. The tilt of the head and the raised arm tell the story.



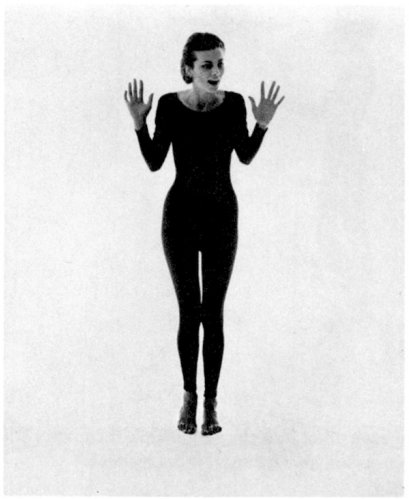
An aggressive, domineering mood is suggested here. The subject's gesture must be pronounced or the viewer may miss the point.



Thoughtfulness is suggested by the quiet attitude and expression of this figure.

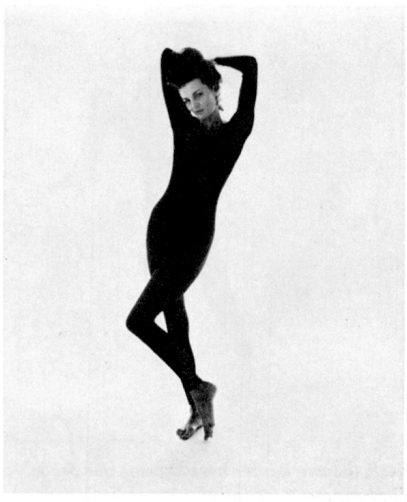


The sharp angles of this figure create a strong feeling of action. Slight motion blur of arms and leg accentuates this.

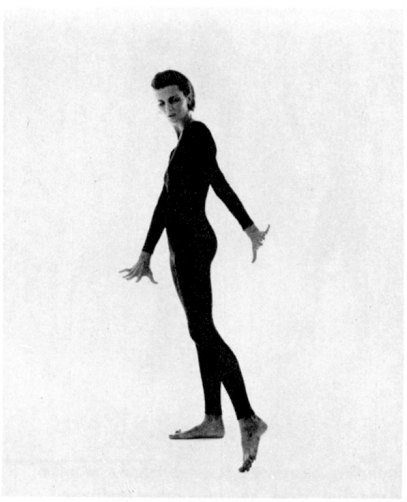


Surprise is expressed by the position of the arms and the extended fingers. This gesture is like an exclamation mark in punctuation.

Slight changes in the position of the arms and the overall pose–plus a change in facial expression–turn surprise into alarm.



Softness and sensuality are suggested by the rhythmic flowing curves of this figure. Compare it with the angular shape above.



Revulsion is shown by the turning away of the body and the rejecting gesture of the hands. Facial expression is important here, too.

The upturned head and the gesture of the arms suggest aspiration, devotion, or submission.

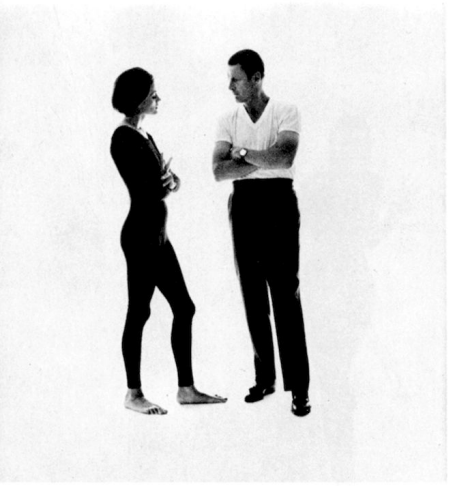
Composing with two or more figures

As soon as you put two or more people in your picture you create a human relationship. Your job is to make that relationship clear to the viewer–to be sure that the figures tell a single story.

Of course, with two or more figures you greatly increase the variety of compositions possible because now you have two or more key elements to work with instead of one. You can give them approximately equal importance, as in most of the pictures shown here. Or you can have one figure dominate by making it larger, clearer, or more detailed, or by lighting it more strongly or placing it in a more prominent part of the picture area. You might arrange the figures at different distances from the camera, isolate them with space, or unify them by overlapping. Many of these points were demonstrated in the composition lesson. Experiment with different arrangements and select the one that best gets your story across.

Make sure that your subjects clearly understand the situation you want them to portray and become involved in it. They may become so absorbed in each other that they forget the camera and their playacting may become, for the moment, quite real. If that happens, you have a good chance for catching spontaneous, natural-looking gestures and expressions. But be prepared to shoot fast–the right mood can come and go very swiftly.

Again using very simple means–a plain white background and semisilhouetted figures–Stern demonstrates how vividly you can tell a human story with just two or three figures if you pay careful attention to gesture, expression, and composition. Compare these pictures and note how pose and expression work together to make each story clear. Note, too, how small differences in gesture or expression can make a big change in what the pictures say.



The relaxed, informal pose of these two figures suggests casual conversation. They could be neighbors, man and wife, or even strangers passing the time while waiting.

By facing each other and clasping hands, the man and woman establish a warmer, more intimate relationship.

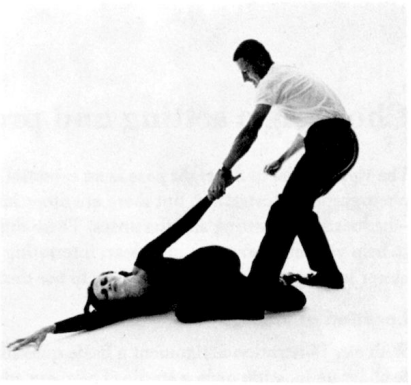
A mood of tenderness is created by slight changes. The figures are nearer to each other, and the man is clasping the girl's hands closer to his body.

Hostility and tension are expressed here. The figures are turned back to back, suggesting rejection of each other. Your subject's expression should support the emotion projected by the pose.

The gesticulating figure at left establishes a mood of anger and conflict. Here, as in the other pictures, notice how the figures are linked by psychological lines of direction.

Here, the two figures have become one shape. They express a feeling of great warmth and closeness. Where the previous picture said conflict, this one says unity.

Be aware of foreshortening: In composing figures, avoid distorted-looking perspective unless you want it for an effect. For example, in the picture at right the girl's left arm is grotesquely foreshortened because it is pointed toward the camera. Perspective looks more normal in the picture at far right, where the girl's arm is more parallel to the film plane.



Look for lively, clearly defined shapes: Use your eyes and really observe the shapes the figures are making–alone or in combination. Avoid relatively stiff, wooden poses, as in the picture at right. Here the figures are almost perfectly vertical. The girl's leg is jutting out at a right angle. The shape of the space between their feet and legs is too regular and uninteresting. Moreover, the figures overlap in such a way it's difficult to distinguish them from each other.

A much more effective variation is shown at far right. See how much livelier and more expressive the figures have become. They are curved rather than straight up and down. The girl's leg is lifted at a more dynamic angle. The space between the legs of the two figures is varied and interesting.

Using three figures

You can create more complex groupings and relationships with three figures. Avoid a scattered, confusing composition. Use overlapping and lines of direction–psychological or actual–to knit the figures together in a meaningful way. Just a few of the limitless possibilities are shown in the accompanying pictures.

At right, all three figures are separate–and yet a clear relationship is instantly established. We tend to group the two girls together in our thought because they are closer to each other than they are to the man and they are both looking at him. The poses are casual; the girls' expressions suggest a friendly, flirtatious interest in the man.

The picture at far right vividly says jealousy. There are only two units here–the rejected girl and the embracing couple. Again, notice the clear-cut, lively shapes–the outlines alone are enough to tell the story.

The situation has changed in the photograph at bottom right. Now the two girls are ganging up on the man, and their gestures are argumentative and angry. The girls are unified by overlapping of arm and leg. Jagged, outthrust shapes emphasize the mood of conflict and tension. At bottom far right, the three figures have become a single unit. All three are friendly and affectionate–the smoothly flowing lines and physical unity of the pose symbolize the emotional unity of the three people.

Choosing a setting and props

The right model in the right pose is an essential element of a good photographic illustration. But there are other important elements, too –the location or setting and the props. These must be chosen carefully to help you tell your story in a clear, interesting way. So let's take a closer look at these elements and how to use them.

Location or studio?

With any illustration assignment a basic question to decide is whether to shoot on location or in a studio. There are advantages and disadvantages to both.

Location shooting gives you the utmost in authenticity and naturalness. No matter how realistic, a studio set often has a staged look. So if you need a detailed, convincing background, shooting on location often is the best choice. Outdoor locations offer you the beauty and variety of natural light, too.

Shooting in a studio, on the other hand, allows you the most complete control. You can shoot regardless of the weather, and place lights precisely where you want them. Studio shooting also saves you and your models the time and expense of travel–and frees you from the job of transporting equipment and props to a location. Effective settings can be achieved by very simple means, as we'll demonstrate –particularly if the effect you want is one of fantasy rather than realism. If these advantages are important, then it's best to shoot in a studio.

Choosing props

This is a vital and interesting part of creating almost every illustration. Props–even extremely simple ones–can be very helpful in identifying characters or situations and telling your story. A schoolbook in a teen-ager's hands quickly identifies him as a student; if we saw the same boy in a picture with a fishing pole we'd immediately get the impression that it's vacation time or a holiday. The same boy with a switchblade knife in his hand communicates quite a different story.

In selecting any prop, keep the following points in mind. Is the object appropriate to the subject, situation, and mood? Will it add to the picture? Is it so large, unusual, or attention-getting that it will call too much attention to itself? Will it "read" well–that is, will it show up clearly and recognizably? Avoid using any prop that a viewer won't be able to identify. It can be distracting and annoying in a picture.

Good props are to be found everywhere–in your own home, department stores, variety and hardware stores, antique shops, bric-a-brac shops, junkyards, specialty stores of all kinds. For example, a five-and-dime store provided Bert Stern with the heart-shaped sunglasses he used in the picture below.

On these two pages we show you examples of the kind of result you can get by shooting on location, and on the following pages we'll show how settings can be created in a studio by very simple means. As you'll see, good props also help make the studio pictures effective.

Shooting on location

Be continually on the alert for good settings you might use on future assignments. Jot them down in your notebook so you won't forget. Make a list of likely spots within a half-hour's drive of your home. This can come in particularly handy when time is short.

Whenever practical, visit the location before you shoot. Study the site to determine the best angles for shooting, to check on the position of the sun in relation to the setting, and to decide what time of day is best for your purpose.

Good locations need not be exotic. An excellent case in point is provided by the photographs reproduced here. A national magazine assigned Stern to photograph Sue Lyon, star of the movie *Lolita*, before it was released. The publication wanted a series of pictures that would capture the essence of the character she played in the movie. Using the simplest of props in a location not far from his studio, Stern shot an unusual set of editorial photographs from which these have been selected.

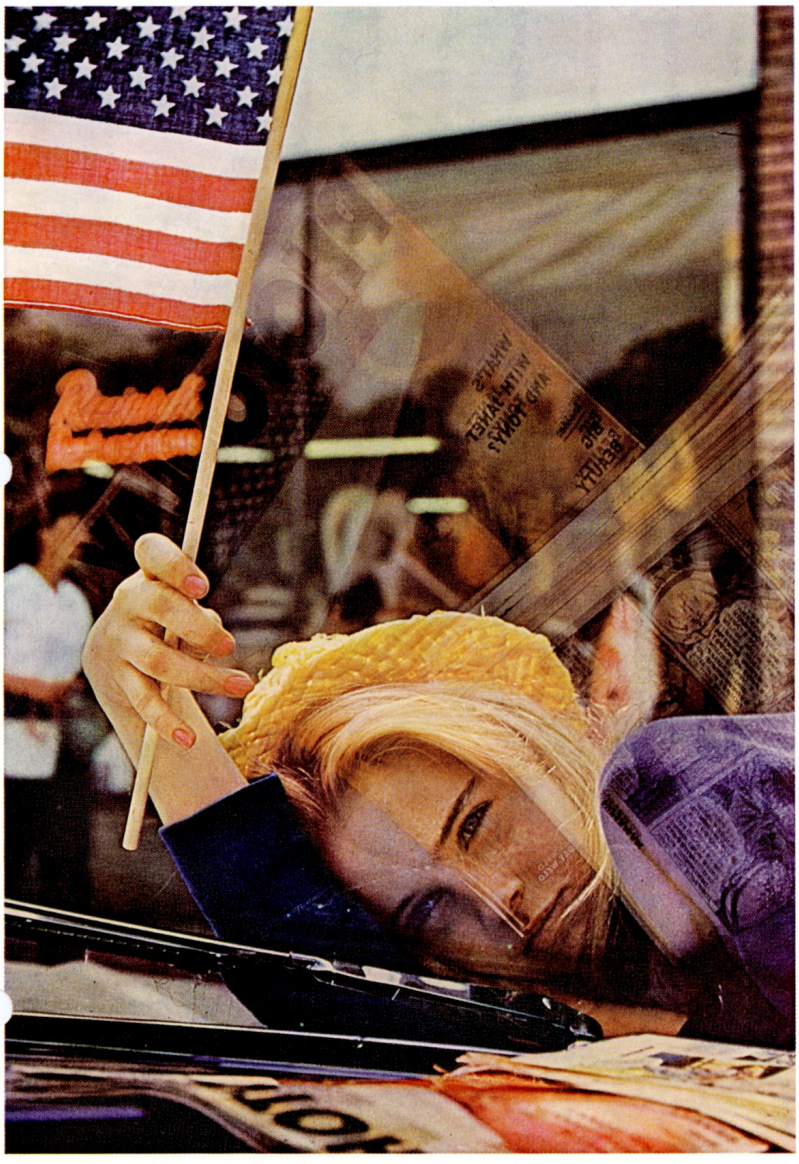
Stern researched his subject by reading the novel on which the movie was based, underlining passages that described the locale, the clothing the characters wore, and other details. After some thought and exploration, he decided to use Sag Harbor, a resort area on Long Island, New York, as a background for his pictures because he felt its streets, motels, and beach had an atmosphere similar to that of the resort town described in the book. Although there was nothing extraordinary in these surroundings, Stern made them the settings for some very unusual pictures.

Stern used a 35-mm camera and daylight or available light for the entire shooting, which extended over a period of five days. This combination of camera and lighting gave him the mobility and naturalness he wanted. He shot most of his pictures with a long [105-mm] lens because he wanted to give the effect of "peeking in," as if the subject were being viewed from a distance through binoculars. Also, the space-flattening effect of the lens and shallow depth of field helped concentrate attention on the girl.

Simple but imaginative props–the open comic book and the heart-shaped sunglasses–help convey the idea of Lolita's girl-woman personality. The glasses, which Stern found in a local five-and-dime store, became a symbol for Lolita and were widely used in ads for the movie. Try to find interesting story-telling props to strengthen your photographs–they are an important part of the visual language you use to get your ideas across.

This picture also suggests the blend of sensuality and childish innocence in the character Sue Lyon portrayed. To convey childishness, Stern used a lollipop as a prop, contrasting it with the adult features of the girl. He shot the picture on the beach at sunset–a location that gave him a clear background and a time that produced interesting lighting. Notice that he included the setting sun, veiled with haze, to repeat the shape of the lollipop and illuminate it. Stern made several shots on daylight color film, bracketing his exposures. He selected this one for the haunting quality of its color.

The photographer planned to use a motel as a background for some of his pictures because it suggested the book's summer-resort locale. He shot this picture at dusk so the gaudy illuminated sign would be the strongest light in the picture and instantly identify the setting. He asked his subject to sit in a chair in front of the motel, and caught her in this lazy, long-legged slouch. He shot both on daylight type and Type A color-transparency film, and chose this shot, with its cool, dreamlike blue tones created by the Type A film, as the most effective.



Stern calls this a "realistic montage." It combines, in an unusual way, many visual elements that the photographer selected as characteristic of Lolita. Stern had his subject pose on the hood of his car while he shot from the inside through the windshield. He had parked the car near a store so that neon signs would be visible out of focus in the background, and placed a movie magazine and comic book so the windshield would pick up their reflections. The straw hat and flag were purchased at the local variety store. He used daylight color film and focused on Miss Lyon's face.
[All photographs on this page courtesy *Look* magazine]

Props, costumes, and simple studio settings

For many photographic illustrations you don't need a large working area. Even a temporary studio in a cleared area of your living room, playroom, garage, or basement will be adequate. Nor are elaborately constructed sets usually necessary. With a few imaginative props you can create–by suggestion–almost any environment you want–a home, office, restaurant, even an exterior. You can take the viewer to Paris or Cairo, to a hovel or a penthouse apartment, without leaving your studio.

Don't attempt to be too literal and realistic in creating your settings. As we emphasized before, if you need realism, it's usually best to shoot on location. But if realism is not important–as in a light, humorous, fantastic, or sophisticated kind of illustration, or a dramatic picture where the background is secondary–you can accomplish much with very simple means. For examples, see the accompanying illustrations. They were all photographed against a plain white background and–with the exception of the Avedon picture–in relatively limited space. In each case colorful story-telling props establish the locale and help to express the idea the photographer wanted to get across.

Notice, too, the importance of costume in these pictures. The type of clothing a subject wears can instantly establish his occupation or economic status, and even suggest his personality or nationality. In larger cities there are costume and uniform rental houses that can supply a photographer's need along these lines. However, by exercising ingenuity you often can locate any special clothing you need, and borrow it for the shooting session. Don't overlook the possibility of finding good props and costumes among the outmoded or discarded items that may be packed away in an attic or storeroom. These can be a treasure chest, especially when you want to create an illustration with a period flavor.

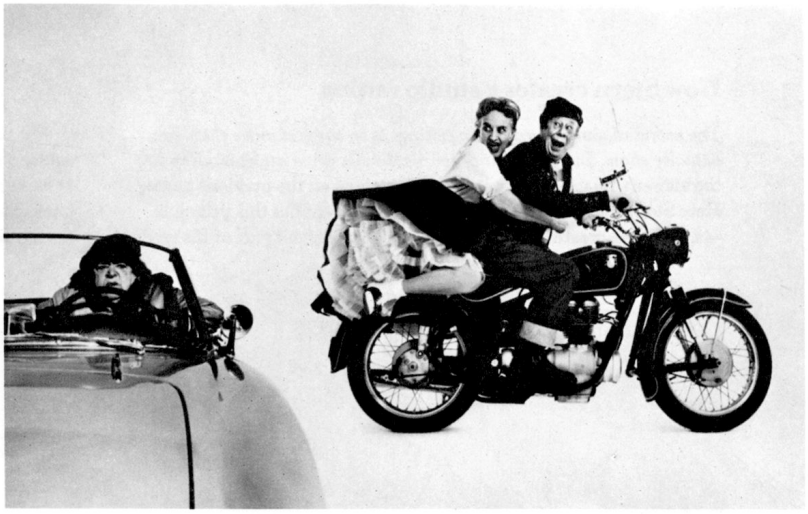
Props and costumes tell the story
Here are three story-telling illustrations photographed by Victor Keppler. The ideas expressed are rather complex and abstract to get across by visual means: [1] "In photography, women have opportunities equal to men's"; [2] "enjoy the rewards and prestige of a photographer"; and [3] "no matter where you live, there is a market for your photographs." But the right costumes and simple props help express these ideas in a direct, amusing way.

1 "In photography, women have opportunities equal to men's": Obviously, a male and a female model were required to illustrate this idea. The cameras and gadget bags instantly say "photographer." Equality is emphasized by giving the two figures approximately equal importance and having them hold similar poses. The fact that both are using the same type of equipment also helps get across the idea of equality.

2 "Enjoy the rewards and prestige of a photographer": A number of props were used to communicate this message. The man is identified as a photographer by the fact that he is holding the cable release of the large studio camera. His artistic success is symbolized by the photograph with prizewinner's ribbons on the wall behind him and the two trophies on the fireplace mantel. The man's wealth and social status are indicated by his formal attire, the shoeshine boy, and the manicurist. A plain background makes it easier to compose many elements so they all stand out clearly.

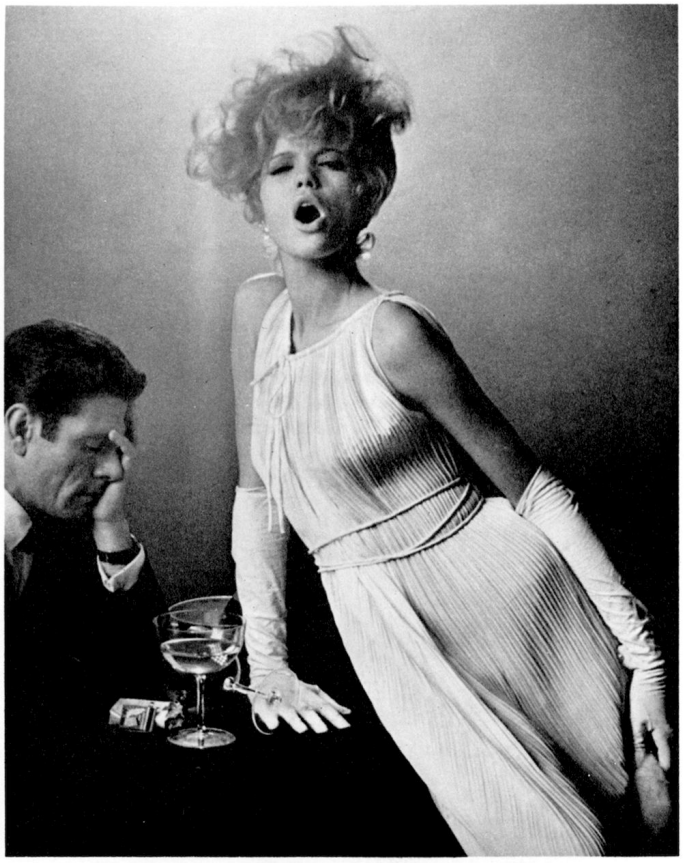
3 "No matter where you live, there is a market for your photographs": If the effect you want is comic or fantastic, you can easily suggest an outdoor setting. Here, a rural mailbox, a small potted plant, and a painted cardboard cutout of a farm with a silo say "country." The man's Western costume and the girl's gingham dress further carry out the rural theme. The camera suspended from the man's neck, the open letter, and the jubilation of both characters round out the story.

Richard Avedon's zany picture of Elsa Maxwell, Hermione Gingold, and Bert Lahr was shot to illustrate a magazine article about these celebrities. Avedon's purpose was to set up an amusingly improbable action situation involving all three. He decided to show Miss Gingold and Lahr in the guise of wild teen-agers nearly involved in a collision with Miss Maxwell. For props, he needed a sports car and a motorcycle. Among the items of clothing he chose to characterize his subjects were a leather jacket and dungarees for Lahr, a peasant skirt, bobby sox, and saddle shoes for Miss Gingold, and a fur hat and fur-collared coat for Miss Maxwell. Neither vehicle was moving, but their placement creates lines of direction that suggest movement. This effect was increased by using a fan to make Miss Gingold's skirt billow. The poses and expressions complete the effect of a near-miss by wild drivers.



These two examples are from a series of humorous illustrations Stern shot for a magazine article on "how to be a blonde." In each of the pictures his goal was to characterize a different type of blonde. Note the imaginative use he made of costumes and simple props.

To typify the adventurous blonde, Stern created a picture parody on the beauty-and-the-beast theme, showing the girl being carried away by a gorilla. He selected a vivacious-looking girl and asked her to wear a white safari suit, suggesting a traveler in the African jungle. The "gorilla" is a man dressed in a rented theatrical costume. Stern wanted lots of action in the picture, with the girl's arms outflung and dynamic lines of direction, so he had the man pick her up and swing her around. "Of course, you can't exactly control the composition in a situation like this," he says. "You just have to watch for good arrangements and shoot fast."



To characterize an expensive blonde temptress, Stern showed the girl in a nightclub and contrasted her restless, exciting quality with the weariness of the companion she has worn out during the evening.

The "nightclub" was created very simply in Stern's studio by placing a round table against a plain white background. Cocktail glasses, cigarettes, and matches add atmosphere. A spotlight in a high backlight position gives lighting suggestive of a nightclub. The models are appropriately costumed for the situation.

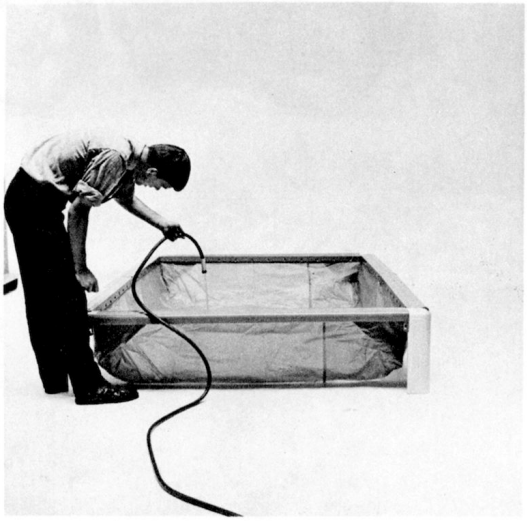
The models' attitudes vividly tell the story. The long slant of the girl's body is the dominating line, creating a dynamic, feminine pose. The man's pose suggests exhaustion. By cropping most of the man out, Stern gave him less emphasis—and still showed enough to get the point across.

[All photographs on this page courtesy *Look* magazine]

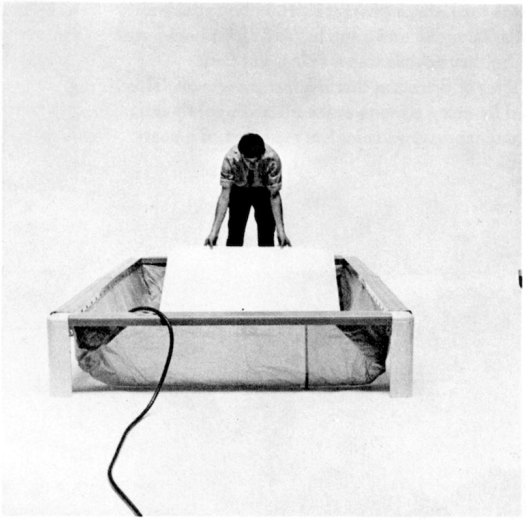
How Stern creates a studio setting

The secret of simple, economic settings is to *suggest more than you actually show*. Just a few story-telling details often are enough to fire the viewer's imagination, as we demonstrated on the previous pages. Here Stern shows another example of how he applies this principle –in this case, creating a "swimming pool" in a small part of his studio.

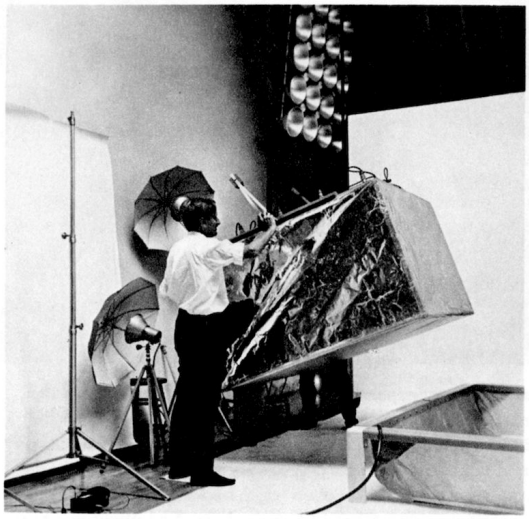
For this picture Stern wanted a bright, lively, outdoor feeling of sun and sparkling water. He chose to shoot it in his studio rather than at an outdoor pool because he wanted to have privacy while photographing the model in the nude, as well as the full control over the lighting that a studio setting would give him.



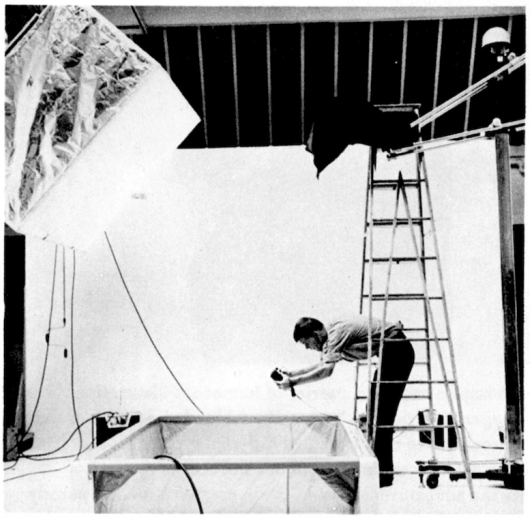
Making the pool: What's a good way to create a "swimming pool" in relatively small studio space? Stern explored several possibilities before he decided to use a child's plastic pool. It was lightweight, inexpensive, and easy to set up. Here, an assistant is filling the pool with water from a garden hose connected to a faucet in the studio kitchen. Warm water was used so the model would be more comfortable. White seamless paper has been hung in the background and extended under the pool. The paper won't show in the final picture; its purpose is to provide bounce surfaces for even lighting.



Adding a white bottom: The bottom of the plastic pool was green, but Stern wanted white for a lighter effect and to set off the model's figure better. White paper or cardboard would disintegrate in the water, so Stern decided to use a sheet of white formica. This hard plastic counter topping is available in a pure white finish and is made in 4x8-foot sheets. The wealth of material available at any well-stocked hardware or building supply store can be very helpful in solving your set-construction problems.

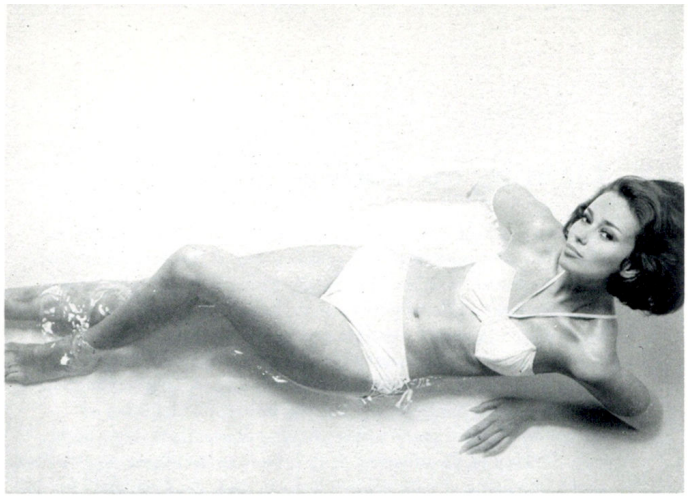


Arranging the lights: To simulate daylight, Stern used a favorite device–a bank of twenty electronic-flash units enclosed in a box and diffused. Here an assistant adjusts the box. The bank of lights is similar to the one at the top. The frame is 1x2-inch pine, covered in front with frosted acetate to diffuse the light, and on the sides with aluminum foil [dull surface *inside*]; the hardboard back is lined with aluminum foil, dull side out. The flash units are mounted on the back. The box is suspended from metal runners overhead, which permits adjusting its height and position. Also, it can be tilted through an arc of 90 degrees.



The complete setup: The bank of electronic-flash units has been raised and tilted to throw lighting on the pool. The camera [covered here with a black cloth] is mounted on a special elevating stand that Stern uses for a nearly vertical angle, which he thought would be best. A tall stepladder has been positioned beside the camera to allow him to focus it from an overhead position. An assistant is taking a test reading from subject position with an electronic-flash exposure meter.

Adjusting the camera: Here Stern is making final adjustments of his 4x5 twin-lens reflex camera. Why so high a camera position? Look at the color photograph and you'll see that to concentrate on the model and water and eliminate the need for a background this was the best position. Including the edge of the pool would have given away the trick. Stern chose a 4x5 camera because he wanted a large color transparency, and he planned to use 4x5 Polaroid film for test shots.



Polaroid test: Many professionals, including Stern, often make test shots on important assignments. Polaroid film offers one good way to do this–it gives a quick, on-the-spot check of lighting and composition. With a 4x5 camera [or any camera that can be adapted to take a 4x5 Polaroid sheet-film holder] you simply load up with Polaroid film, take a test shot, and immediately develop it in the holder and examine the print.

One of Stern's test Polaroid shots is shown here. He was satisfied with the lighting, but saw that the model would need to stir up the water to get more surface reflections and make it look more like water.

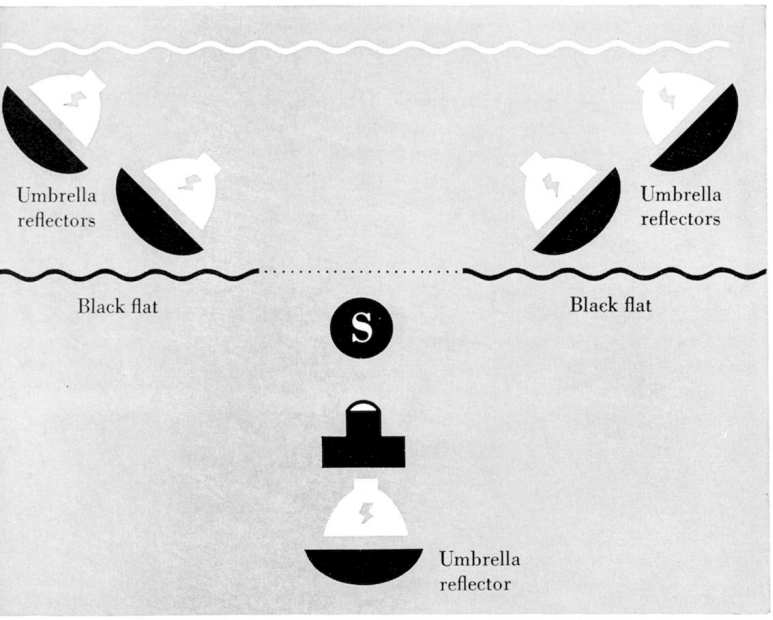
The result: Here is the final picture, photographed on daylight type color-transparency film [which also is balanced for electronic flash] at *f*/22. Notice the quality of the light–soft and natural-looking, but with shadows strong enough to model the subject. This light is similar to that of the bank of floods Penn used in his story-telling picture in the still-life lesson–and it also offers the coolness, daylight color quality, and action-stopping ability of electronic flash. The stirred surface of the water catches and reflects the light, just as a breeze-touched pool might sparkle in daylight. Since we see just the model and the water, we aren't aware that the pool extends only a small distance beyond the picture area.
[Courtesy Mehlich, Mandarino, and Zito]

Lighting an editorial illustration

Lighting is a basic element in telling your story. Depending on the effect you want, you might use or adapt any of the lighting methods we've taught so far in the Course. For example, you might shoot by available light on location to capture the feeling of realism, use the harsh glare of a single spotlight to create a dramatic mood, or put colored gels in front of your lights for a special color effect.

Here and on the following pages Stern demonstrates still another method–bounce backlighting. He uses this type of lighting, or variations of it, for many of his editorial illustrations. It's a highly versatile kind of illumination. With it you can get effects ranging from a dark silhouette of your subject to good, clear shadow detail and soft gradation of tones. It can give you pictures that are realistic, that create a delicate high-key effect, or that are offbeat and grainy. You will find this method of lighting, or modifications of it, very useful in editorial illustration, and it can be adapted to much advertising and fashion photography, too.

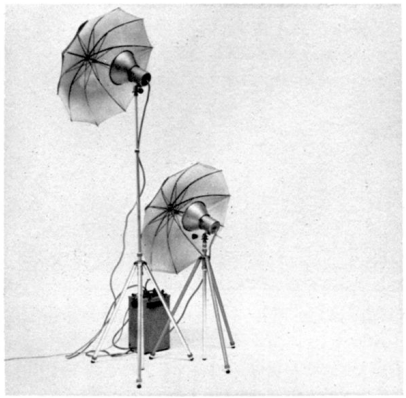
To show you how to use this valuable kind of lighting, Stern demonstrates in step-by-step detail, with variations, how he shot an editorial illustration for a section on "summer fun" for a woman's magazine. He wanted to suggest the light, gay, glamorous mood of summer vacation time. To do this he decided to use a minimum of elements–an attractive model in a bikini against a plain, bright background. He wanted an imaginative, fanciful treatment rather than realism. Bounce backlighting played a vital part in creating this effect.



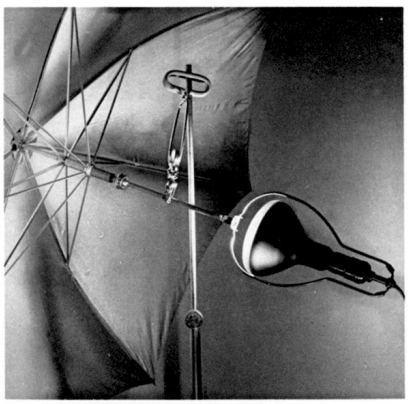
The basic setup: Here's a diagram of the basic lighting setup Stern used. He placed a sweep of twelve-foot-wide white seamless paper behind and under his subject. [A smooth white background is essential to the success of this lighting method.] Then he positioned a pair of 300-watt-second electronic-flash units in *umbrella reflectors* on each side of the background. In each pair one unit is high and one is low. [You can make your own umbrella reflectors as explained at right.] Instead of umbrella reflectors, you might use large sheets of white cardboard as reflectors. And you could substitute flashbulbs or floods for electronic flash. The important thing is to *bounce* your light onto the background to get very soft, even illumination on it. If you pointed your lights directly at the background the illumination might be too harsh and create hot spots.

Two black-painted flats or masking screens [each about seven feet high] are placed between the lights and the camera to minimize the danger of flare, and prevent any direct light from spilling onto the subject. For the flats to be most effective the subject must remain forward of the dotted line.

The umbrella bounce unit placed high and behind the camera is for additional fill-in light. This may or may not be required, depending on the amount of detail you want in the shadows. Stern will demonstrate its effect later; the first pictures he took were made with the backlights only



Umbrella reflectors: Flash or flood bounced off the silvered inside surface of an umbrella provides an excellent source of diffused but directional light. Umbrellas with silver inside surfaces are sold by some suppliers of photographic lighting equipment. Two of these units used by Stern are shown here. In each, an electronic flash is attached to the umbrella shaft and pointed at the silver inside surface of the open umbrella. The shaft is attached to a light-stand, and the umbrella is pointed to reflect light in any direction you want.

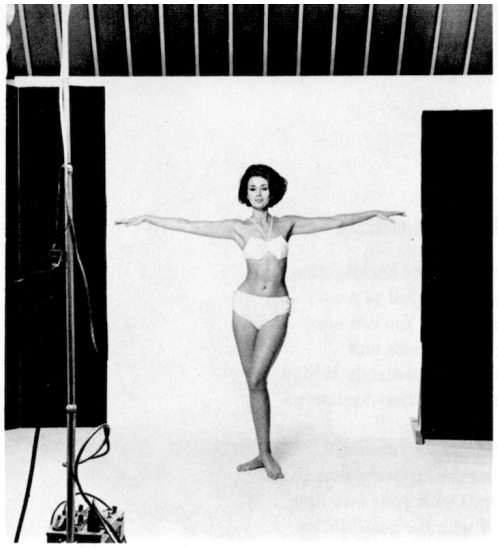


Homemade umbrella bounce unit: This unit uses a photoflood bulb instead of electronic flash. [A similar rig can be created for electronic or conventional flash, too.]

To make one of these units, buy a man's plain *cotton* umbrella. Be sure the fabric is cotton. Synthetic fabrics might dissolve in the silver paint you will spray on. Next, obtain a can of quick-drying spray-on silver paint. Apply several coats until the inside surface of the opened umbrella is evenly coated.

Cut off the umbrella handle and fasten to the end of the shaft the fixture needed to hold the light source. A "lamp harp," available at hardware stores, was soldered to the shaft in this illustration. [A welding shop or an auto repairman can attach the harp for you.]

Marking the subject's position: If your subject stands too close to the illuminated background, you run the risk of getting light "leaks"–an effect we'll demonstrate in a moment. Usually, you get best results with the subject at least about eight feet from the background. The subject should not stand *too far* from the background or you may not be able to position the camera far enough away to get everything in the picture area. Experiment to find what the practical limits are in your case. When you know where you want the subject to stand, mark the position on the floor paper, as Stern did here. Then instruct your subject to stay on or near this mark.

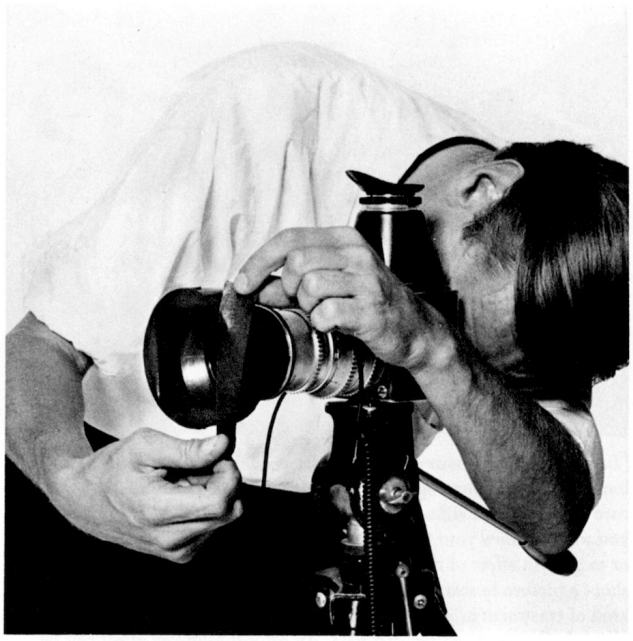


Placing the flats: The two black flats should be placed *behind* the subject's position and hide the background lights from the camera. They improve contrast and minimize the danger of flare–always possible in a backlighted picture. Also, they prevent direct light from "leaking" over the edges of the figure.

Obviously, you don't want the flats to show in your picture. To check their placement, have your subject stand on the spot marked on the floor and stretch out both arms sideways. Look at the groundglass and see that there's space between your subject's fingertips and the edges of the flats. Adjust the flats, if necessary. If you have two or more models, you may need more space between the flats. *Just be sure they block off direct light from your background lights.*

Light leaks: If you don't use masking screens–or if your subject stands too close to the background–this is the effect you may get. Some direct light spills around the body, causing strong highlights and a choppy effect rather than soft, even illumination.

No light leaks: With the masking screens properly placed and the model sufficiently far from the background, here's the kind of soft, gentle modeling you should get. There are variations in tones–under the chin for example–but these are subtle rather than harsh. Even with her body turned, no strong highlights are picked up on any of its planes. This is the effect that Stern usually prefers with bounce backlighting.



Masking the lens: To minimize the chance of flare still further, Stern also masks the lens shade with black masking tape. Attach a strip of tape to the top, bottom, and both sides, as Stern's studio chief demonstrates here. If you do this, be sure you're not cutting off any of the picture area. With a camera having through-the-lens viewing, you can check the effect directly on the groundglass. With other camera types, shoot a test exposure to be sure the tape masks aren't cutting into the picture area, then mark the position of the tapes on the lens shade so you'll know where to place them another time.

Control through exposure and fill-in lighting

Exposure provides one way to vary the effect of bounce backlighting. You can expose for moderate detail in shadows, for a full or nearly full silhouette effect, or for an overall high-key effect. You can also control the effect by adding fill-in lighting from a bounce unit [umbrella or white cardboard] placed above and immediately behind your camera. On these two pages Stern demonstrates these variations and shows you his final picture.

Strictly speaking, there really is no such thing as a "normal" exposure with bounce backlighting. You choose the exposure that gives the effect you want. You'll need to run some tests with your own film and lighting equipment to familiarize yourself with the possibilities.

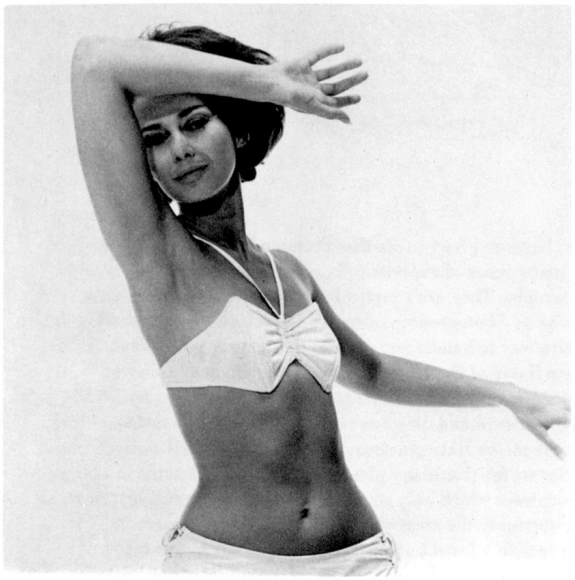
As a guide, here's the method Stern uses to achieve good shadow detail in a bounce backlighting setup. [An electronic-flash meter was employed to take readings for this demonstration; with floods, you can use a reflected-light meter in a similar way.] First, stand in the subject position and take an overall reading of the background with the background lights on. Then take a *close-up* reading of the front of the subject [or a stand-in] standing on the marked position and facing the camera. [Be sure no light from the background is reaching your meter.]

The difference in the two readings should be 1 1/2 stops–for example, *f*/5.6 for the subject and between *f*/8 and *f*/11 for the background. Expose at the midpoint between these two *f* stops. If the subject is too dark in relation to the background, add a bounce fill-in light behind and above the camera. Adjust the distance of the fill-in light until you get the balance in brightness you want, checking it with close-up readings with the backlights *and* fill-in light turned on.

Medium exposure—no fill: Here the backlights only were used. In Stern's white-painted studio enough light was reflected into the front [shadow side] of the subject to give adequate balance with the background. Exposure for the midpoint between shadows and background gave this effect: white background and some detail. The lighting on the face and figure is very soft and even.

[*Left*] **Underexposure—no fill:** By reducing exposure four stops less than the medium exposure, we get this result. The figure is recorded as a dark silhouette. You might underexpose like this when you want to show your subject as a symbol rather than an individual, or to give an effect of mystery. For example, if you'd been assigned to shoot a picture to start an article on next year's beach fashions, this kind of treatment might be a good choice.
[*Right*] **Overexposure—no fill:** An offbeat high-key effect can be obtained by overexposing. For example, Stern overexposed by three stops here; the background is pure white and the tones of the figure are very light. Overexposure also tends to increase grain and reduce sharpness–effects more apparent in an enlargement and ordinarily considered undesirable. However, sometimes you may want to increase grain for its texture.

Exaggerated grain: Here's an example of the exaggerated grain pattern sometimes used by Stern to achieve a dreamlike effect. To emphasize grain, shoot on 35-mm film; use a very fast coarse-grain film [Isopan Record in this case] without front fill, and print on a contrasty grade of paper [Brovira contrast grade No. 6 here].



Medium exposure—plus fill: By adding a bounce fill-in light to the basic bounce backlighting setup you can adjust the brightness of the subject to get the correct balance with the background. Also, adding the fill increases contrast and puts more modeling on the subject, as you can see. The fill used here was an umbrella bounce unit, adjusted to give an exposure difference of 1 1/2 stops between subject and background. For a relatively soft, realistic effect with good shadow detail, this variation is a sound choice.

For a degree of fill and modeling between the no-fill examples and this one, bounce your fill-in light from a large white reflector. [Never use direct light as a fill or it will destroy the subtle effect.]

Photoflood guide light: Stern sometimes clamps a No. 2 photoflood bulb in a standard metal reflector to the stand that holds the electronic-flash reflector for his bounce fill-in unit. This photoflood gives him a guide light for focusing.

The final picture: Once he had worked out the lighting to his satisfaction, Stern was free to concentrate on getting lively, graceful poses from his model. He used a twin-lens reflex and a high-speed film, shooting several rolls in quick succession. He chose this lithe pose as his favorite because its rhythmic lines suggested action and movement appropriate for his "summer fun" theme. It was taken with backlighting only, because he wanted the flat, less realistic effect this gave, with the tones lending just a touch of modeling to the figure. We don't ordinarily see things in this sort of light–it is ethereal and feminine.

Creating picture ideas

Finding good props, posing your models, arranging the lighting, and all the other physical steps that go into making an editorial illustration are important, but they are only means to an end–putting a visual idea onto film. The *originality and aptness* of the idea are what makes one illustration stand out over another one [assuming equal craftsmanship in both]. Here, to help you develop your skill in creating visual ideas, we'll explain some general techniques for stimulating your imagination, and then discuss specific methods you can apply in working out your ideas.

Dig into your memory: We all have thousands of impressions stored away in our unconscious minds–impressions gathered over years of the shocks, surprises, pleasures, and experiences that life deals out. This store of memories is perhaps the richest source any photographer has in creating visual ideas. Before you begin a photographic assignment, take some time out to *think*. Dig into that store of memories and see what you can find that will be helpful in working out your assignment.

Let's say, for example, that you've been assigned to create an illustration for an article on teen-age dating. Obviously, you'll show a boy and girl–but where? Think back to your own first dates. You might remember sitting together on a porch swing on a summer evening, visiting an amusement park, or going to a teen-age dance in a high school gymnasium. Any one of these memories might suggest a good location and situation for your picture. You might also think of holding hands, and perhaps decide to symbolize dating with a close-up of hands.

Talk over your ideas: Sometimes talking about the assignment will help stimulate the flow of ideas. If you can find a sympathetic listener–especially one who can supply additional ideas–you often can get your imagination running in high gear. Mention any ideas that come to mind and jot them down. Don't worry at this stage whether or not they are far-fetched or impractical. Your goal should be to generate as many ideas as possible. Something you suggest may spark a better idea in your friend, or vice versa. Later, you can go over the list of ideas critically and select the one that seems best.

Study the work of other photographers: Looking at the work of other photographers has been a source of ideas ever since the days of Daguerre. Don't look with the idea of *imitating*, but for the stimulation it gives. See how a photographer handled his particular problem. How could the picture be improved? Is there anything he did that could be adapted to your own needs? The photographs in your Course textbooks are a rich source of ideas, but you also should keep in touch with the current work of your Faculty members and other photographers in leading magazines. Clip photographs that you like and save them. Going over a file of clippings of this type can jog your imagination and suggest a good way to work out your own picture.

Enrich your personal resources: Your mind is like a computing machine: if you don't put much into it, you can't expect to get much out. Therefore, one way to increase your ability to generate good ideas is to constantly increase your mental resources. Visit art museums or look at art reproductions; study the paintings of the great masters both of the past and present. Go to movies that make good use of photography. Watch for interesting visual techniques on television. If you can, visit the theater, ballet, opera, and other performing arts. Keep up with the events around you, too, by reading newspapers and magazines. Allot some time to reading important new books. Absorb as much of life as you can–particularly the artistic side of life.

Six methods for creating unusual pictures

In addition to the general ways to increase your ability to create picture ideas we've just discussed, there are specific methods you can apply. Here we give you six that Philippe Halsman has worked out after many years of experience in generating ideas for unusual photographs. They are adapted from his book *Halsman on the Creation of Photographic Ideas*. The next time you are at a loss for an effective way to handle an editorial illustration, go through this list and see if any of the suggestions here offers a good solution.

1 Use the direct approach: The first approach to try is to be as straightforward and direct as possible. This usually makes a strong photograph. As Halsman says: "This rule seems self-evident, but in practice we see that many pictorial statements are made in oblique or indirect ways which only weaken their impact. Strangely, our mind often overlooks the most obvious solution. It is like searching for a secret lock in a jewel box instead of simply lifting the lid."

2 Find an unusual technique: If the subject is ordinary or uninteresting, you may be able to make an unusual and interesting picture by the photographic technique you use. This includes such things as an unusual angle or lighting, blurring motion with a slow shutter speed, moving the camera, changing color with a filter, choosing a very wide-angle or long lens, shooting the subject against an unusual background or with an unusual foreground, finding an unusual composition, or deliberately overexposing or underexposing. In the darkroom, you could try such methods as unusual cropping, making a high-key or low-key print, using a paper of very high or low contrast, diffusing or distorting the image, etc.

3 Add an unusual feature or prop: A good approach is to introduce an unusual feature, prop, or personality into the picture. This has been done in advertising photography with striking effect [for example, the eye-patch on the man in the Hathaway shirt, the Marlboro tattoo, and Schweppes' bearded Commander Whitehead], and it can also be applied to editorial illustration. Try to find something that is not only attention-getting, but that has a story-telling quality as well. The unusual element does not have to be a person or prop; it may also be attention-getting action, as in the accompanying picture of five choreographers by Halsman.

4 Leave something out: This method is just the reverse of the previous one; instead of putting in something unexpected, you take out something that the viewer would expect to see. The omission of an element that should be there can make an outstanding photograph. This sometimes can be achieved by an unusual camera angle. One example is Halsman's rear-view shot of Churchill, reproduced in the lesson on composition; the missing element is the face, of course. A similar example is the photograph of underwater ballet swimmers in the photojournalism lesson. With the swimmers seen from below the surface, all their heads are missing.

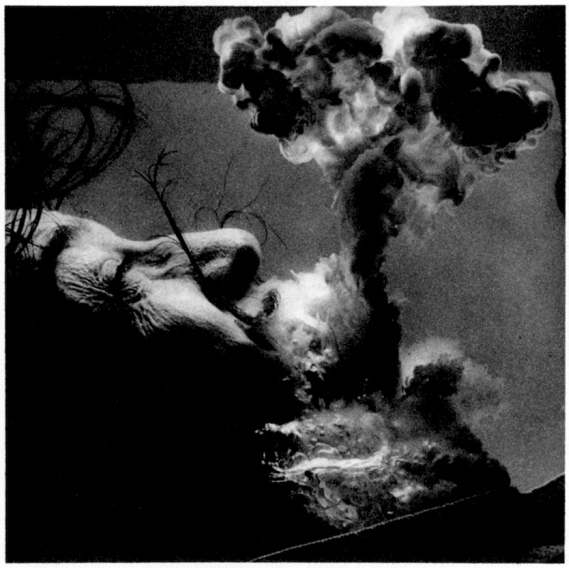
5 Combine two ideas: Sometimes you may come up with an idea that gives a touch of originality, but by itself is not strong enough to make an unusual picture. Instead of discarding it, perhaps you can find a second idea to add to it. The combination may provide a satisfactory result. For an intriguing example, see the picture of Salvador Dali we have included here.

6 Translate words into an image: This approach is what Halsman calls the "ideographic" method. By this he means finding an image that expresses the words of a phrase, title, or story line. One example of this is provided by an assignment he received to take a color photograph of Zsa Zsa Gabor with her ghost writer, Gerold Frank, for possible use on a magazine cover. Halsman immediately rejected the idea of a straight, formal portrait as too hackneyed. Instead, he decided to take the word "ghost" in its literal sense. He posed Miss Gabor in the foreground and had Frank stand in the background behind a semitransparent tulle curtain that made him look ghostly. The picture was used on the cover with the words: "Zsa Zsa Gabor and her famous ghost."

This amusing picture of Eva Gabor and a friend is a good example of what Halsman means by adding an unusual feature. The dog is the unexpected element, and the contrast between the woman's adoring look and the animal's strained expression creates a delightful comic touch. Halsman used bounced electronic flash to freeze the dog's expression, while an assistant off camera attracted the animal's attention.

In photographing five choreographers for a magazine illustration, Halsman again applied his principle of adding an unexpected feature. While four of the subjects were shown in quiet seated or reclining poses, the fifth was caught by speedlight in the midst of a leap. A stepladder was a useful prop, suggesting a backstage environment and enabling Halsman to arrange three of his subjects at different levels. The variety of clothing–shirtsleeves, storm coat, business suit, and ballet costumes–also makes the picture more interesting.
[Courtesy *Life* magazine, ©Time, Inc.]

How would you express in a picture the complicated idea that in American civilization men and women are becoming more and more alike? In illustrating an article on the merging of the sexes for a national magazine, Halsman used a literal approach, showing a man and woman with overlapping profiles, but imagination and an unusual technique lift the photograph out of the ordinary. He took two separate pictures–one of the man and one of the woman. In each, the outline of the head and contours of the face were lighted, but most of the rest of the head was in shadow. Halsman sandwiched the two negatives together in his enlarger and made the print, producing the strange effect you see here.
[Courtesy *Life* magazine, ©Time, Inc.]



Here's a good example of what Halsman means by combining two ideas. When he was working on a book of pictures of Dali's moustache, he needed to produce more than thirty interesting and unusual photographs of this single subject. One of the many ideas he tried was showing the moustache under water [with Dali holding his breath and submerging his head in a glass tank filled with water]. "His moustache drooped and looked rather funny, but it was not enough to fill me with enthusiasm," Halsman comments. Then the photographer got a second idea which he thought would combine well with the first. He gave Dali some milk and asked him to squirt it out of his mouth when he put his head under water again. The milk rose to the surface in the shape of an atomic mushroom cloud, producing a weird and funny picture–the result of combining two separate ideas.

Creating picture ideas [*continued*]

In editorial illustration, the challenge is to produce interesting, imaginative pictures that are also apt–that is, they must give clear expression to the theme or story line of the accompanying words. Keep this principle in mind when you apply the methods given on the preceding pages. Remember, too, that imaginative pictures are not necessarily complicated. In fact, a very simple treatment often makes the best picture.

For examples of good creative thinking, study the accompanying photographs by Bert Stern. They were taken to illustrate a fashion magazine feature entitled "What to Spend a Fortune On." Stern's assignment was to produce a number of pictures with the quality of a dream sequence, showing different ways that a sophisticated woman might spend a million dollars. Notice the fresh, amusing situations he devised to carry out this theme, and the simplicity and directness of the pictures.

A fundamental step was the selection of the right model for the key role. She needed to be beautiful and sophisticated looking, of course. But she also needed some acting ability in order to give Stern a variety of convincing expressions in the pictures. Once he found the right girl, he went ahead and created these illustrations. [A fifth photograph from this series serves as the frontispiece of this lesson.] Although Stern used celebrities in supporting roles here, they are actually quite secondary. If you think out your picture idea in a clear, original way you can be just as successful with good amateur models!

Every girl likes having her hair done, Stern reasoned. With a fortune to spend, why not have a private session with Kenneth, one of America's most famous hairdressers? Stern did not need a realistic setting, so he used a plain white background. He arranged for Kenneth to take part in the shooting, and gathered the few simple props required to express his idea–a graceful chair, a table, and a stockbroker's ticker to tie in with the "millionairess" theme. The girl's glasses [without lenses, so they wouldn't cause reflections] were a last-minute comic touch. In keeping with the light-hearted tone he wanted, Stern asked the hairdresser to casually smoke a cigarette and seem more interested in the stock market reports on the tape than the girl's hair. The lighting was electronic flash arranged in a bounce-backlighting-plus-fill setup.

If a girl's going to live like a queen, she should have the most magnificent of cars. Therefore, Stern decided to shoot one picture with his model riding in a Rolls-Royce. For an additional touch of fantasy, he arranged for actor Robert Preston to be the chauffeur. The photograph was taken in a garage with a sweep of white paper behind and under the car. The blank background made it possible to crop the picture with the car on a slant, creating an impression of motion. Stern shot from a high front position to give a clear view of the model and Preston through the windshield, to emphasize the car's characteristic grill and radiator cap, and to heighten its look of majestic power.

Another way a rich and sophisticated woman might spend her money is on rare wines. Stern wanted to create a romantic rather than a comic effect here, as a change of pace from the more whimsical shots. In addition to a bottle of wine and delicate wine glasses, an attractive man was needed: this time Stern chose Italian actor Walter Chiari. Again, a plain white background and soft bounce backlighting were sufficient, the atmosphere being created by the props and the expressions–Chiari seemingly fascinated by the girl, while she appears more interested in the wine. Notice the care with which Stern arranged the figures and objects. The girl is given more importance in subtle ways–she is on the right, occupies more of the picture area, is a more varied, active shape, and Chiari is looking at her. A draped portion of her black scarf leads the eye to the bottle. She is holding her wine glass–an important story-telling detail–so we can see its shape clearly.

The girl with a fortune to spend might also indulge her taste for music, according to Stern. As fitting entertainer for his millionairess he chose jazz musician Gerry Mulligan, and had Mulligan actually play his saxophone during the shooting. Again, the girl's pose and expression strongly contribute to the picture's effectiveness: her upstretched arms, closed eyes, and pursed lips suggest her ecstatic enjoyment of the music. To heighten the dreamlike quality of the scene, Stern blurred the bottom of the picture by smearing vaseline on a sheet of glass and placing it in front of the lens. Because he was using a single-lens reflex he could see the effect and adjust the position of the glass and its distance from the lens to get just the degree of blur he wanted. [The closer the vaseline-smeared glass to the lens, the softer the blur effect.]

[All photographs courtesy *Vogue*, ©1962, Condé Nast Publications, Inc.]

Portraits as editorial illustrations

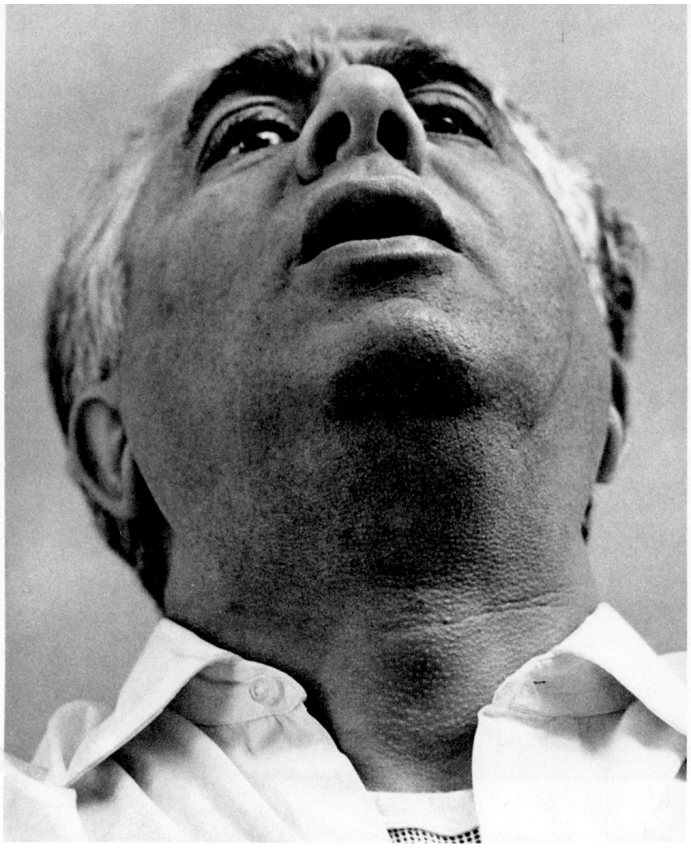
Now, let's consider a kind of illustration quite different from those we've talked about so far–the editorial portrait. A portrait may be used as the lead picture in an article about a personality, for example, or to represent a character in a story. Because of the great impact and human appeal a face can have, head shots are often used on magazine covers, too.

Many of the pointers we've given you about portraiture in previous lessons also apply in shooting an editorial portrait. However, the purpose of an editorial portrait is not to please the subject, as it is in standard portraiture, but to intrigue and interest a magazine reader. It should make a significant and interesting statement about the subject. And it needs to be visually exciting–with bold composition, evocative lighting, an unusual angle, offbeat color, a provocative expression, or some other treatment that lifts it out of the ordinary and makes the viewer stop and look.

This isn't to say you should use gimmicks or tricks just for their own sake. The unusual touch should bring out some aspect of the subject that's meaningful and important. For some good examples of the effective offbeat touch, see the accompanying editorial portraits by members of your Faculty.

The lady featured in this startling portrait is singer Eartha Kitt. The picture is an excellent example of what Halsman means by his "principle of the missing element," used to catch a viewer's attention. Halsman chose a camera angle and pose that make Miss Kitt stand out dramatically against the white paper background, but at first glance her arms seem to be missing because one is hidden behind her and the other is thrust directly toward the camera. The expression and strong diagonal lines suggest the performer's vibrant energy.
[Courtesy *Esquire*]

This charming mother-and-child picture was photographed by Avedon as a cover illustration for a woman's magazine containing a feature article on maternity fashions. Here it is the child's gesture as it nuzzles, half hidden, in the woman's hair, and her tilted head and pleased smile that lift the picture out of the ordinary. Although a "set-up" shot taken in the photographer's studio, it has a natural, spontaneous charm likely to catch the eye of any magazine reader, and therefore is a good choice for a cover illustration.
[Courtesy *McCall's* magazine]



For this portrait of Russian composer Aram Khachaturian, Halsman shot up from a low angle to give a startling view of the man. By emphasizing the composer's powerful neck and jaw, he created what is in effect a photographic caricature of the subject –and a strong, eye-stopping image.
[Courtesy *Life* magazine, ©Time, Inc.]

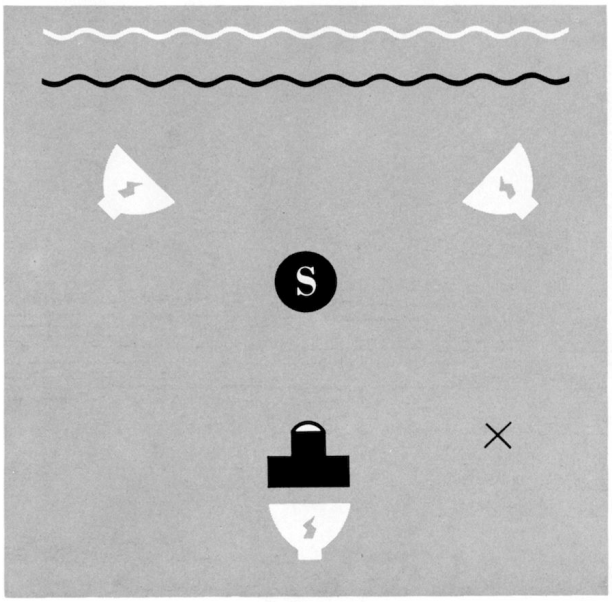
In shooting this portrait of an artist, Stern posed him in profile silhouette against one of his paintings, giving the portrait an abstract quality that echoes the man's work. The bold, simple shapes in the composition and this unexpected way of seeing the painter make it an intriguing picture. Of course, in a portrait done to please the subject, you normally would want to show the face in more detail.
[Courtesy *Life* magazine, ©Time, Inc.]

Stern used pose, expression, and lighting in a dramatic way to emphasize the romantic side of movie star Sophia Loren. He asked her to lean on a table and puff a cigarette, with the illumination from a window shining on her face and just touching one bare shoulder. The strong, predominantly low-key lighting and the lazy swirls of smoke reinforce Miss Loren's sultry expression.
[Courtesy *Vogue*, ©1962, Condé Nast Publications, Inc.]

How Stern shoots editorial portraits

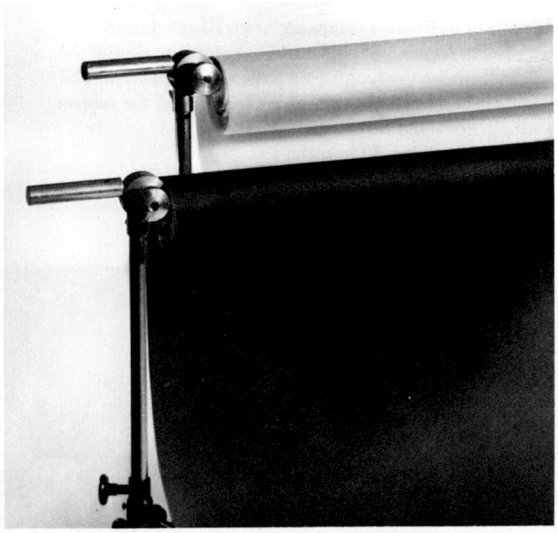
Good planning is essential in shooting editorial portraits. Of course, it's easier to control all the elements of a portrait by making it in your own studio. Often, however, you can plan things to get the effect you want even when shooting on location and with limited time. In fact, by applying the methods Stern demonstrates here you can, in a sense, carry your studio with you.

Stern was assigned to shoot a number of portraits of Elizabeth Taylor and Richard Burton at the time they were working on the movie *Cleopatra*. He wanted strong, simple head shots of the stars alone and together–pictures with a plain background and a poster-like impact suitable for use as a magazine cover. He had to shoot the pictures in a London movie studio where the stars were working, and was allowed only a half-hour of shooting time. You may never have the opportunity to photograph subjects as glamorous and famous as those that Stern did here. But similar planning and methods can be useful whenever you have limited shooting time.



The basic setup: Stern arrived well ahead of time to set up his lights and backgrounds as shown in the accompanying diagram. He arranged to use a portion of a sound stage [a cleared area in any fairly large room would work just as well]. He mounted a roll of white seamless paper on the wall about eight feet from the floor and pulled down enough to make a sweep. Then he mounted a roll of black seamless paper just below the white roll, as in the photograph at right. To change backgrounds, all he had to do was pull down the black paper so it covered the white. To go back to white again, he simply cut away the black paper. The advantage of this arrangement is the speed with which you can change from one background color to another.

For lighting, Stern used three electronic-flash units [you could use floods in a similar setup]. He obtained a small bench for his subjects to sit on, then arranged his lights as you see in the diagram–two units bounced off the background and the mainlight in a high front position. He marked the location of the mainlight on the floor, and then marked an alternate, 45-degree position [indicated by the "X" in the diagram]. With the white background he used all three lights, keeping the mainlight in the high front position. With the black background he switched off the two bouncelights and used the mainlight only, in the 45-degree position. By planning your lighting ahead of time and marking the floor, you can change back and forth very quickly.



Mainly, Stern was after color portraits for magazine-cover use. But he also wanted to get some good black-and-white pictures as he went along [for possible use in magazine articles about the stars]. Therefore, he employed two cameras–a 2 1/2 x 2 1/2 single-lens reflex [with a 150-mm lens] loaded with daylight color-transparency film, and a 35 mm [with a 105-mm lens] loaded with fast black-and-white film. His assistant reloaded one while he was taking pictures with the other. For the black-and-white shots, like this portrait of Burton and Miss Taylor made later in the sitting, he used the illumination from one or more of his electronic-flash modeling lights. This is a good method to remember when you're shooting a double coverage in color and black-and-white.
[Courtesy *McCall's* magazine]

So as not to waste any of the brief time allotted him, Stern made his first shot before Miss Taylor had her hair done. He asked her to pose with a scarf wrapped around her head, making a graceful frame for her face. He used the white background with all three lights to get a bright, evenly illuminated effect that emphasizes the colors in the scarf and lips. A medium-long lens gave him a large undistorted image.

While Miss Taylor was having her hair done, Stern shot some portraits of Burton. The photographer pulled down a length of black paper, shut off the two background lights, and moved his frontlight to the 45-degree position. Turning off the electronic flash, he shot with the illumination from the 3200K modeling light. On daylight film this gave rich, warm colors, as if the portrait had been made by the dying light of sunset. On a portrait made to please the subject you ordinarily would not want such warm hues, but for editorial illustration offbeat color may be appropriate.

When Miss Taylor returned, Stern cut away the black paper, moved the third flash unit to the front position again, turned on the backlights, and took some more close-ups of the star. He chose the white background to emphasize the black hair and sweater. The portrait has a strong, simple composition, with the red lips the only bright area of color, making this another good candidate for a magazine cover.

Getting a good double portrait was a key part of Stern's plan. With only a few minutes left, he tried one more lighting variation he felt would give him a strong, dramatic picture. Moving the light to a 90-degree side position, he had Burton face the camera, with his features half in shadow, while Miss Taylor faced the light. Notice the effective use of overlapping and value contrast here—with the actress's brightly lighted profile set against the shadow area of Burton's face. This powerful portrait was used on a national magazine's cover. [Courtesy *Life* magazine, ©Time, Inc.]

The steps to follow

Each editorial illustration you undertake will have its own specific requirements. But even though your assignments may be different in detail from any shown in this lesson, you can apply the same methods of thinking and planning that we have explained here.

Keep firmly in mind the goal of your picture–the story it must tell. As an editorial illustrator you are a story-teller who uses pictures instead of words. Finding the basic idea that will translate words into pictures is the all-important first step.

Once you have the idea, the next requirement is to present it with clarity and force. Each of the ingredients that go into the picture should be selected with this aim in mind. Your choice of a model or models plays a critical part in expressing the picture idea. Whether professional or nonprofessional, the models must be the right age and physical type, so they will look convincing in the role you give them.

As you have seen, the selection of a suitable location or the construction of a set also can be a vital part of an editorial photograph. For realism, there's no substitute for shooting on location. A pleasant home, a shady backyard, a busy office, a candlelit restaurant, a lonely stretch of beach, a meadow, a forest, a wheat field, a brook–these are typical of locations with a distinctive atmosphere.

However, it sometimes is more practical and economical to shoot in a studio. If detailed realism is not necessary, you can create evocative, interesting sets with minimum means. A comfortable chair and a reading lamp can suggest a cozy living room; a typewriter and a file cabinet can say "office." With ingenuity you can create a variety of sets in very limited space, and with just a few props.

Editorial illustration gives you a fine opportunity to apply your knowledge of lighting effects creatively. Think of the lighting as another means that helps you tell your story. Do you want a dark, gloomy, low-key effect? Would a delicate, high-key treatment be more appropriate? Will the emphatic punch of a spotlight or the soft overall illumination of bouncelighting best emphasize the important things in your picture and help set the right mood? Consider the many possibilities, and choose your lighting with as much care as you select a model and setting.

Ability in directing your models can make a big contribution to the success of your pictures. There are no hard-and-fast rules for getting the results you want from your models. The photographer-model relationship is a very personal one, and no two photographers have exactly the same approach. You will have to acquire this skill in the only way possible–by actually working with models over a period of time. However, we give you some basic tips at right.

Putting all these ingredients together so they make a good picture is a challenging job. Certainly, no one can expect to become an expert editorial photographer overnight. But by applying the principles we have demonstrated in this lesson–by experimenting and developing your own creative variations–you can get off to a good start in this fascinating kind of photography.

Tips on posing models

- As you plan your picture, form a clear mental image of the *effect* you want to achieve. Then explain what you want clearly and simply to your model or models. Sometimes it may help if you demonstrate the kind of pose you want.
- Get your models interested and emotionally involved in what they're doing. If they become absorbed in the "playacting," they tend to forget the camera and become more spontaneous and convincing in their actions.
- Avoid static, mechanical poses. For example, instead of having a model just hold a broom, you'll probably get a much more lively picture if you ask her to sweep with it. If you want to show two people talking, actually get them engaged in conversation.
- Look for "shapes that say something." Figures should show up clearly, so the viewer can instantly see and understand the action or gesture. Be especially careful to avoid confusing tone mergers between important parts of the figure and the background, props, or other figures.
- Shoot a number of pictures. Rarely will you get your best result on the first try when working with models. Just as in portraiture, the first few frames you shoot may be wasted unless the models have warmed up. Think of the effect you want the picture to give, and try different variations. Keep shooting until you feel you've got some good shots. But don't shoot aimlessly. There should be a reason every time you trip the shutter.
- Consider the personal comfort of your models. In hot weather, an air-conditioning unit can make things easier both for you and the people you photograph. [It also reduces the danger of having your models look uncomfortable and sweaty.] Keep some refreshments handy for work breaks.
- Music can be a great aid in getting your models into the mood you want them to express. Choose appropriate records–fast and jazzy, slow and sweet, or dramatic and brassy. Turn the set up loud when you want to create tension or excitement. Play the music low for a soothing effect.

Technical notes on the photographs

Page 2
Bert Stern; Rolleiflex with an 80-mm *f*/2.8 lens; Tri-X film; exposure for electronic flash at *f*/11; electronic flash.

Page 4
Leombruno-Bodi; Rolleiflex with an 80-mm *f*/2.8 lens; Tri-X film; 1/125 second at *f*/8; daylight in studio.

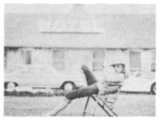
Page 5
Carl Mydans; Leica with a 100-mm lens; Kodachrome Daylight Type film; exposure for electronic flash at *f*/8; electronic flash.

Page 5
Philippe Halsman; Hasselblad with a 150-mm *f*/4 lens; Tri-X film; 1/15 second at *f*/5.6; dark rainy day.

Page 5
Philippe Halsman; Hasselblad with an 80-mm *f*/2.8 lens; Plus-X film; exposure for electronic flash at *f*/22; electronic flash.

Page 10
Bert Stern; Nikon F with a 105-mm *f*/2.5 lens; Tri-X film; 1/125 second at *f*/8; daylight.

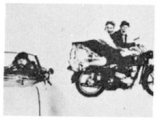
Page 11
Bert Stern; Nikon F with a 105-mm *f*/2.5 lens; Kodachrome Daylight Type film; 1/30 second at *f*/3.5; daylight.



Page 11
Bert Stern; Nikon F with a 105-mm *f*/2.5 lens; Kodachrome Type A film; 1/2 second at *f*/4; dusk.

Page 11
Bert Stern; Nikon F with a 105-mm *f*/2.5 lens; Kodachrome Daylight Type film; 1/100 second at *f*/8; daylight.

Page 12 [All three photographs]
Victor Keppler; Hasselblad with an 80-mm lens; Plus-X film; exposure for electronic flash at *f*/16; bounced electronic flash.



Page 13
Richard Avedon; Rolleiflex with an 80-mm *f*/2.8 lens; Plus-X film; 1/125 second at *f*/16; bounced electronic flash.

Page 13
Bert Stern; Rolleiflex with an 80-mm *f*/2.8 lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/6.3; electronic flash.

Page 13
Bert Stern; Rolleiflex with an 80-mm *f*/2.8 lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/4; combination electronic flash and spotlight.

Page 21
Philippe Halsman; Hasselblad with an *f*/2.8 lens; Tri-X film; exposure for electronic flash at *f*/22; bounced electronic flash.

Page 21
Philippe Halsman; Rolleiflex with a 75-mm *f*/3.5 lens; Super-XX film; 1/500 second at *f*/11; three flash units.

Page 21
Philippe Halsman; Fairchild-Halsman with a 210-mm *f*/4.5 lens; Super Panchro-Press, Type B film; 2 exposures of 1/10 second at *f*/11 each; 2 spotlights; final print made by superimposing the two negatives in the enlarger.

Page 21
Philippe Halsman; Rolleiflex with a 75-mm *f*/3.5 lens; Ansco Supreme film; exposure for electronic flash at *f*/16; electronic flash.

Page 22
Bert Stern; Hasselblad with a 150-mm lens; Tri-X film; exposure for electronic flash at *f*/8; bounced electronic flash.

Page 22
Bert Stern; Bronica with a 50-mm lens; Tri-X film; exposure for electronic flash at *f*/8; electronic flash.

Page 23
Bert Stern; Hasselblad with a 150-mm lens; Tri-X film; exposure for electronic flash at *f*/11; bounced electronic flash.

Page 23
Bert Stern; Hasselblad with an 80-mm *f*/2.8 lens; Tri-X film; exposure for electronic flash at *f*/8; umbrella-bounced electronic flash.

Page 24
Philippe Halsman; Rolleiflex with a 75-mm *f*/3.5 lens; Tri-X film; exposure for electronic flash at *f*/22; electronic flash.

Page 24
Richard Avedon; Rolleiflex with an 80-mm *f*/2.8 lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/22; bounced electronic flash.

Page 25
Philippe Halsman; 4x5 Fairchild-Halsman with a 150-mm *f*/4.5 lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/16; electronic flash.

Page 25
Bert Stern; Rolleiflex with an 80-mm *f*/2.8 lens; Ektachrome Daylight Type film; 1/30 second at *f*/5.6; daylight.

Page 25
Bert Stern; Nikon F with a 105-mm *f*/2.5 lens; Tri-X film; 1/30 second at *f*/2.8; window light.

Page 26
Bert Stern; Nikon F with a 105-mm *f*/2.5 lens; Tri-X film; 1/60 second at *f*/5.6; electronic flash modeling lights.

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Bert Stern; Hasselblad with a 150-mm lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/16; 3 electronic flash units.

Page 27
Bert Stern; Hasselblad with a 150-mm lens; Ektachrome Daylight Type film; 1/60 second at *f*/5.6; electronic flash modeling light.

Page 27
Bert Stern; Hasselblad with a 150-mm lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/16; electronic flash.

Page 27
Bert Stern; Hasselblad with a 150-mm lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/16; electronic flash.

Famous Photographers Course
Famous Photographers School, Inc., Westport, Connecticut

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Lesson 18

Fashion photography

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As a fashion photographer, you must learn to recognize the aspects of a garment that will mean the most to the viewer and emphasize them in your picture. For example, the graceful folds and classic lines of this evening gown are its most meaningful features. In order to bring them out, Richard Avedon had his model assume a pose suggesting a Greek statue and then used high sidelighting from a single flood to model her features strongly and give the dress the look of sculptured marble. In this lesson we'll teach you how to recognize the important fashion points of the clothing and get them across to the viewer in attractive, interesting, and imaginative ways.
[Courtesy *Harper's Bazaar*]

Photographing fashion

If you have a sense of beauty and an interest in style, fashion photography can offer an intriguing and profitable field for your camera skills. It's intriguing because you work with photographic subjects that are fascinating in themselves–and are surrounded by the beauty, glamour, and excitement that are part of the world of fashion. And it's profitable because fashion is big business and pays well for appealing, persuasive photographs that help to launch a new style or put across a "look" in clothing or accessories.

Designers, garment manufacturers, fashion magazines, women's pages of newspapers, department stores, dress shops, retailers of men's and children's wear–all rely on photographs to tell the ever-changing fashion story to the buying public. In this lesson we'll teach you how to take the kind of pictures that these editorial and advertising clients seek.

Magazines and newspapers want photographs that *report the fashion news clearly and accurately*. The more sophisticated publications–the "high fashion" magazines–want this done in imaginative and unusual ways, in which the *mood or atmosphere you create around the garment* may be as important as showing the details of the garment itself. By contrast, advertisers primarily want pictures *that make the viewer desire to wear the merchandise you show*. Sometimes a straightforward, realistic treatment is best–and usually is a must if the garments are low priced. At other times an offbeat approach may be required–especially if the merchandise is expensive, exclusive, or very advanced in styling. In that case the high-fashion methods we'll teach in this lesson are the ones to use.

You can gain a good deal from studying the methods and techniques of fashion photography, even if you don't plan to enter the field professionally. For example, you can learn important points about posing the figure, lighting fabrics to show texture and pattern, and choosing backgrounds and props that enhance your center of interest. This knowledge often can be useful in editorial, advertising, press, and portrait photography as well as for fashion assignments.

We'll devote most of the lesson to teaching you the fundamentals of photographing women's apparel–by far the largest and most important area of fashion photography. But we'll also discuss the special problems involved in shooting men's and children's wear.

The Faculty members who will guide you–Richard Avedon, Irving Penn, Bert Stern, and Richard Beattie–are among the top professionals in the field. They will show you how to plan and carry out a wide range of fashion assignments, from high-fashion editorial to catalog illustrations.

Developing an eye for fashion

A fashion photographer needs to be aware of the details of line, shape, texture, and pattern that are the features of style in clothing. He notices such things as the length of a skirt, the drape of an evening gown, the cut of a tailored suit. He sees and remembers how fashionable people walk, sit, and gesture and the kind of accessories they wear. We'll suggest practical things you can do to develop this eye for fashion and will point out in detail the important "fashion points" to look for.

Once you've decided on the main fashion points of the garment, you must concentrate on bringing them out in an interesting, believable way through the actions of your model. There are some classic poses and attitudes that have been used over and over in fashion photography–for example, having the model stand with hands on hips, shoulders turned, and one foot forward. But fashion photography today often seeks a more inventive and imaginative approach. We'll show you the traditional, classic ways of photographing fashions, for these are often wanted by clients–and we'll also show you how to achieve variety, human interest, and action in your fashion pictures. Among the valuable creative approaches we will demonstrate, for example, is how to build your fashion pictures around a theme–some story-telling action that holds the elements together. "*Make* something happen," Avedon advises–even if it's as simple as having the model step out of a car, reach into a handbag, or walk a dog.

One thing you should always bear in mind is that your model can be of considerable help in getting your fashion points across–if you choose one whose figure and appearance flatter the clothes you're showing. The right model in the right pose can make even an ordinary dress seem beautiful and desirable. Throughout this lesson you'll find tips on the selection of fashion models, and in a step-by-step demonstration Avedon will show you common errors to avoid as well as the objectives to aim at in posing models.

Setting up for fashion pictures

You don't need elaborate or specialized equipment for fashion work. Many fashion photographers, including your Faculty members, frequently use a 120 roll-film reflex camera, either on a tripod or hand-held. They find that its mobility, speed of handling, and groundglass viewing make it ideal for most situations. However, almost any camera you can use with confidence and ease will serve your needs.

Often the *simplest kind of lighting* is the best for fashion pictures–the soft, diffused light of open shade, for instance. Excellent fashion shots have been made with the subject in front of the plain wall of a building on an overcast day. You can simulate this situation indoors by bouncing floods or electronic flash from white walls or flats. This is the technique Avedon uses for most of his studio pictures. When he wants the more dramatic effect of strong light and shadow, Avedon employs a hand-held "beauty light" flood. We'll demonstrate both techniques in this lesson.

Simplicity is the keynote for your fashion *backgrounds and props*, too. On many occasions a perfectly plain background that lets the viewer concentrate his full attention on the model and clothes is your best choice. Sometimes, however, you may want to work in background details that suggest the nature and use of the clothes you're featuring or that create a mood to fit the costume–an outdoor scene for sports clothes, for example, or a nightclub atmosphere for evening wear. When you do this, keep the background secondary to the fashion points or it may run away with your picture.

Props such as furniture, accessories, pets, etc., are helpful in fashion setups *if they contribute to the meaning of the picture*. Again, use them with restraint. You'll find examples of both simple and complex backgrounds and props in the illustrations on the following pages. Notice how in each case they help to carry out the theme or mood the photographer had in mind.

Whatever elements you bring into your picture, they should be organized around a central idea or concept–*your* way of interpreting the fashion story. More and more, editors and advertisers are looking to the fashion photographer for ideas as well as execution. Put your imagination to work and try to come up with fresh ways of posing a model, lighting the clothes, or arranging background and setting. If you can *think* like an editor or advertiser as well as *work* like a photographer, you'll have an excellent chance to make your mark in this highly colorful and exciting field.

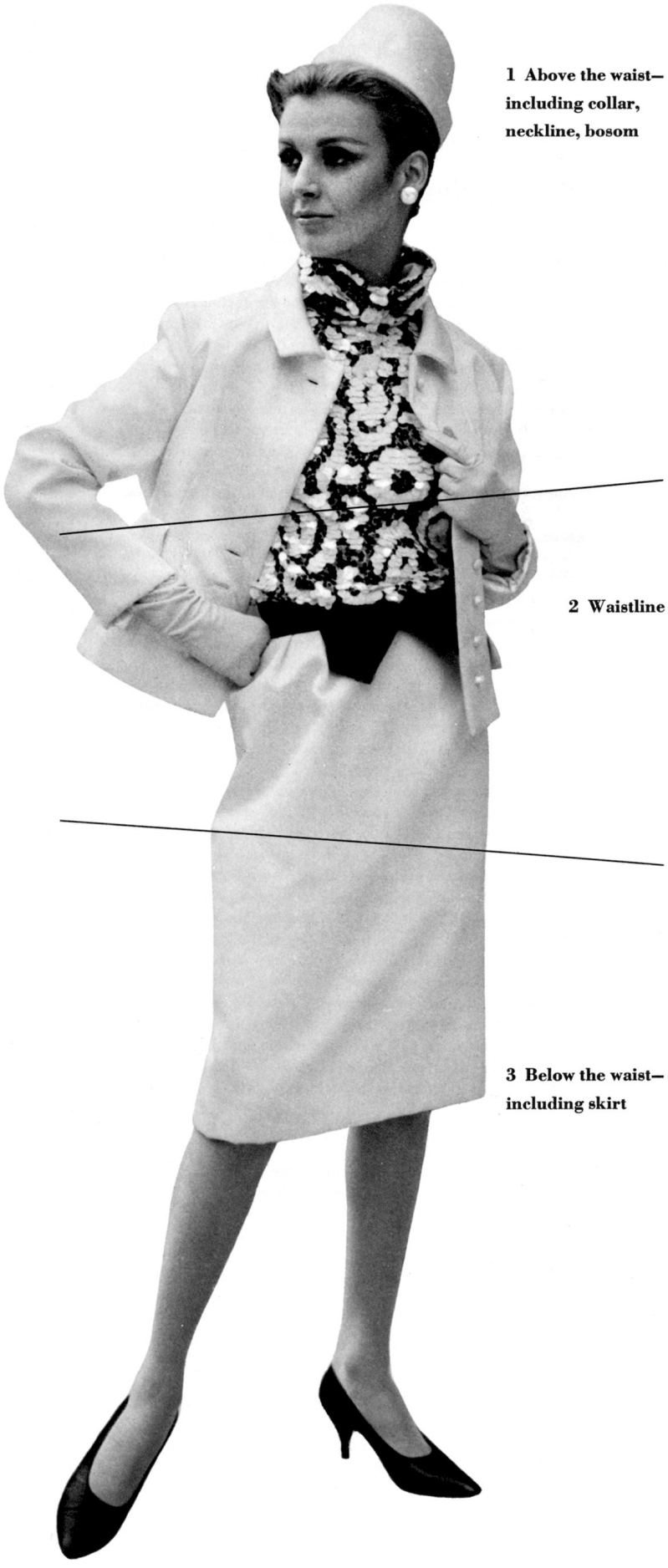
The three key fashion areas

Every season, new designs [or variations of earlier ones] enter the fashion field. Usually, the fashion news or changes show up in one or more of the *three key fashion areas* indicated in the silhouetted figure at right. If you are asked to photograph a garment, first examine these key areas in detail for the fashion points to emphasize. Then take a careful look at the overall silhouette of the garment to see if there is anything new or different here that you should bring out in your picture.

The detail photographs on the facing page show some of the most important fashion points to watch for when you are analyzing a garment. They also give you suggestions for ways to emphasize these things in your pictures.

See if you can pick out similar fashion points as you study the pictures throughout this lesson. Note how the photographers have called attention to the distinctive features of the garments through pose, camera angle, and lighting.

Fashion changes also may occur in materials and in accessories such as shoes, hats, handbags, and jewelry. Look for these changes, too—they may be important things for you to emphasize in your pictures.



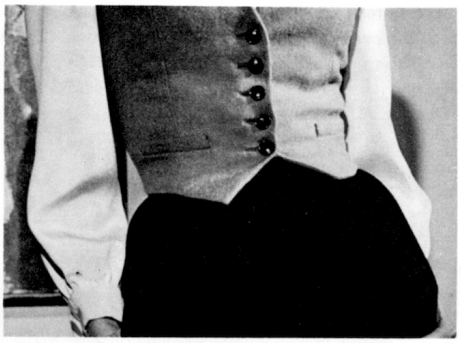
To show how a garment fits around the neck, shoulders, and bust, it's often best to photograph these parts of the body straight on or turned at just a slight angle to the camera. However, for a more varied, interesting pose the model's head can be turned in a different direction, as is the case here.

The collar of a coat is usually a style point. Here the photographer has raised the collar to full height, showing its function as a shield against the wind as well as its styling. Sidelighting emphasizes the collar by throwing one part in shadow, one part in light. [Lighting and value contrast provide you with basic ways to emphasize fashion points.]

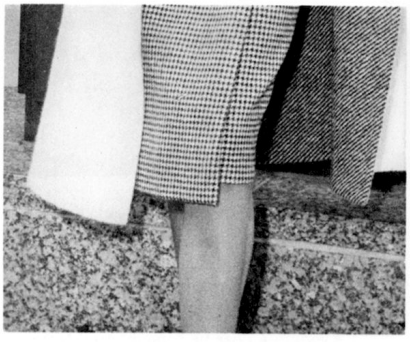
The length, cut, and fit of sleeves often are style points. You can show these details clearly by posing your model with arms extended and sleeves distinctly defined, as in the picture, or by having her turn one arm and shoulder toward your camera to give a good side view.

A wide fur belt emphasizes the narrow waistline of this dress. The model has turned her body slightly to make her waist seem even narrower.

Here the fashion interest is at the waist and hipline. The position of the model's hands on her hips leads the eye to this part of the garment. It's often a good idea to have your model place her hands so they direct attention to the point you want to stress.



The fit of a vest, jacket, or sweater at the waistline or hips is an important detail and often calls for emphasis. A head-on view clearly shows this fashion point.



Whenever you take a full-figure shot, be sure the hemline is neat and at the currently fashionable length. You can adjust a hemline with methods we demonstrate later in the lesson.

If pleats are a fashion point, as in this wool suit, the model's legs should be extended to spread the skirt and display the pleat.

A feature of this teen-ager's skirt is the decorative lining, so the photographer has pinned back one edge to reveal the flowered pattern underneath.
[All photographs courtesy Wide World Photos, Inc.]

Gaining a fashion background

The more you know about the fashions of the past, the better equipped you'll be to interpret in pictures the fashion news of today. One of the best ways to acquire this knowledge and sharpen your eye for fashion is to spend some time in your local library, thumbing through books illustrating clothing styles from ancient times to the present. Although fashion photography is relatively young, paintings and drawings have portrayed well-dressed women for many centuries. Goya, the eighteenth-century Spanish court painter, for example, was a supreme fashion artist. So were Holbein, Rembrandt, Gainsborough, Sargent, Renoir, and many others.

Studying the figures and fashions in the paintings of these master artists will benefit you in two ways. First, it will give you new insights into techniques of posing and lighting the human figure to bring out the beauty of fabrics and designs. Second, it will acquaint you with the major fashion trends of the past that may reappear in the clothes you're called upon to photograph. Fashion moves in cycles and often repeats itself. Today's style in coats, dresses, or evening gowns may stem from influences of twenty, fifty, a hundred, or even a thousand years ago. Being able to recognize these influences when you see them can help you photograph fashion with greater perception and understanding.

After saturating yourself in the past, study the present. Ask your librarian for back copies of the leading fashion magazines and study the pictures carefully. This is fashion history in the making. Note how the fashions you see in editorial and advertising photographs are always a jump ahead of the current styles. Styles are constantly changing. A fashion is no sooner established than there is a new fashion elbowing it aside. *Change* and the tireless pursuit of *newness* are the essence of fashion [even though the style itself may have its roots in ancient Rome or the French Empire period, or be a revival, with variations, of what women were wearing in the twenties or thirties].

Try to capture the element of novelty in the fashion pictures you make. For example, if the fashion news is a shift from smooth-knit to bulky sweaters, your photograph should bring out the texture of the new sweaters and the added freedom of movement they provide. If the fashion story is a higher or lower hemline, or a fitted look, emphasize these features, making them appear as exciting and appealing as possible. Often, fashion changes will be relatively slight modifications of detail. It's a challenge to you, as a fashion photographer, to find ways to emphasize minor changes and create the illusion of newness and importance. Camera angle, lighting, props, accessories, the model's hair style, backgrounds, and unusual locations all can help you achieve this effect.

As you go through the fashion magazines, note the different groups or lines of clothing and accessories–the sportswear line, the cocktail or evening-dress line, casuals, etc. You'll also become aware of seasonal groupings: beachwear, furs, and fall suits, for example. Fashion is a year-round business and the photographer, like the designer, often must prepare his work well in advance of the date when the clothes go on sale in order to meet advertising and editorial deadlines. He may photograph bathing suits in December and fur coats in August. His job is to know what's coming next season–and to be able to recognize and play up its fashion points.

1947: Fur and chiffon for evening gowns were fashion news in 1947. The photographer decided to create a soft, romantic atmosphere. He chose a story theme–the end of a gay evening in a restaurant–and developed it through pose, lighting, and props.

Avedon had the man move slightly to blur his figure, since it is the girl who carries the fashion interest. Note how the fall of light from above brings out the folds in the dress, while the placement of the girl's hands subtly draws attention to the fur trimming.

1948: Another year and other fashion points to emphasize–this time, those of a tailored suit for street wear. The photographer moved outside and placed his model in a setting that was charged with activity and stressed masculine qualities rather than soft femininity.

When you set up a "busy" picture like this you have to be careful that your fashion points don't get crowded out of the scene. Observe that the figures have been grouped so that the acrobats frame the model and she remains the center of interest in spite of all that's going on. She is carefully posed to reveal the cut of her jacket and the back panel of her skirt–fashion highlights of the costume.

1950: A profile view reveals the interesting shape of this hat against a plain background. The hat and toreador jacket are Spanish in flavor, and suggested this stylized pose to Avedon–a pose he remembered from a Spanish portrait.

Follow current trends

Don't let your fashion education stop with library research. The fashion world is ever-changing and you must keep up with it if you want to succeed in this profession. Subscribe to one of the many trade publications in the clothing field, if you can. Study store-window displays and the society and fashion columns in daily newspapers and Sunday supplements. Observe, particularly, the key fashion areas we discussed in the previous pages. How are they different from last year or the year before? Accent these differences in your pictures.

Also learn to look at graceful, well-dressed women with a fashion expert's eye. Note how they stand, sit, and move; the pose of the feet, the lift of the head, the use of hands; the accessories they wear or carry; their hair style and makeup; the kind of jewelry they select for different occasions.

Your research and first-hand observations can be invaluable when you set up your fashion pictures. If the pose of a model is wrong, you'll be able to see the trouble and tell her how to remedy it. If a waistline is too low or an accessory doesn't blend with the costume, you'll be in a position to detect the error and correct it. A good fashion photographer must become something of a fashion authority in his own right–even if he works with a stylist or editor who can provide guidance in matters of taste and appropriateness.

The photographs on these two pages were taken by Avedon over a decade and show some of the marked changes in style that took place during this period. Pay particular attention to the way the photographer has dramatized and emphasized important aspects of the style by his choice of angle, pose, lighting, etc.

Start a reference file

A file of picture clippings from fashion magazines, trade publications, and newspapers can be a helpful source of ideas for lighting, composing, props, backgrounds, etc., which you can adapt to your own shooting. Here is a suggested filing system. Use a file separator for the main categories and a folder for each of the subdivisions.

Accessories

Bags
Gloves
Hosiery
Jewelry
Neckwear
Shoes

Active sportswear

Beachwear
Golf
Riding
Tennis
Other

At-home wear

Hostess gowns
House dresses and coats
Negligees
Nightgowns

Coats

Daytime
Evening
Rain
Spectator sportswear

Dresses

Daytime
Evening
Spectator sportswear

Furs

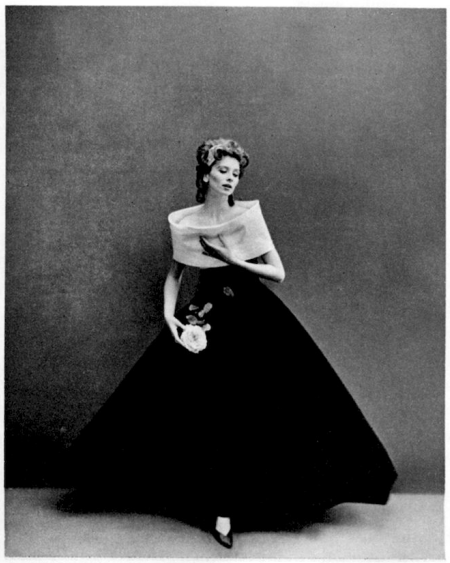
Hairdos

Hats

Lingerie

Makeup

1955: This year brought the "tunic look," with stress on tubular coats and tight-fitting skirts. The fashion news was the *line* of the garment. To report it forcefully, Avedon photographed his model in sharp silhouette against a blurred background. The upraised foot gave the lines of her figure a more rhythmic flow and stressed the narrow fit of the skirt. The Parisian atmosphere said to American readers: "This is what fashionable women in Paris are wearing now."



1956: Compare this photograph of an evening gown with the one taken in 1947. Both are romantic in mood but the interpretations are quite different. Where the earlier picture is intimate and sophisticated, this one is formalized and restrained. The model might have stepped out of a court painting or an old storybook illustration. The change in mood and pose follows the change in materials and design–from fur and chiffon to black velvet and white satin, and from a clinging dress to one that leaves the shoulders bare and flares at the hips. Note how the model's hair style blends with the old-fashioned charm of her costume.

1959: This evening gown, with its flowing taffeta cape, presented the problem of how to show the two garments as individual parts of the same costume. The solution was to catch the model in motion, as if a gust of wind had lifted the folds of her cape. Avedon had her whirl toward him and stopped her action with a 1/250-second shutter speed. To emphasize the black tones he placed her against a light background, underexposed, and overdeveloped to heighten the contrasts within the black areas and separate the dress from the cape.

[All photographs courtesy *Harper's Bazaar*]

What you need

In fashion photography you can use the same equipment and materials you've already gathered for previous lessons. For indoor work, the setups you used for portrait photography and editorial illustration should do nicely. When you're on location outdoors, under good natural light conditions, all you really need is a camera, exposure meter, and perhaps a cardboard reflector for fill-in lighting.

Cameras

As we pointed out earlier, a 120 roll-film single-lens or twin-lens reflex is favored by many professionals for a great part of their fashion photography. You can use the camera on a tripod or hold it in your hands if the situation calls for more mobile shooting. This type of camera has the advantage of groundglass viewing and focusing, and you can operate it quickly to catch changes in the model's action and poses. The 2 1/4 x 2 1/4 negative can easily give you sharp, detailed fine-grain enlargements–an important feature when you must bring out the texture and design details in a garment.

A 35-mm camera is useful when mobility and a fast lens are important–for example, if you're doing a series of pictures on yachting clothes aboard a small boat, or shooting evening clothes by available light in a nightclub. Candid, available-light fashion pictures can be interesting and effective, and a miniature camera is a logical choice for this kind of work. However, large blowups from 35-mm negatives are apt to have somewhat more grain and less sharpness than is usually desirable in fashion pictures.

For a more studied, formal fashion picture, taken under controlled studio or outdoor conditions, a view camera has several advantages. You can compose more precisely on the groundglass back and you get a large-size negative that requires little or no enlargement. The disadvantage of the view camera is that you may sacrifice spontaneity, since you work from a fixed camera position and the model must hold her pose within a restricted picture area.

Depending on the lighting conditions, use a slow- or medium-speed fine-grain film, and always expose and develop with care. Your principal aim in fashion photography is to give information about the clothes, and that usually means sharp negatives and prints.

Lighting

For most fashion pictures you'll need bright but *diffused* overall illumination. This kind of light brings out the beauty of clothes and model with clarity and softness, but doesn't throw dark shadows that may be ugly or confusing.

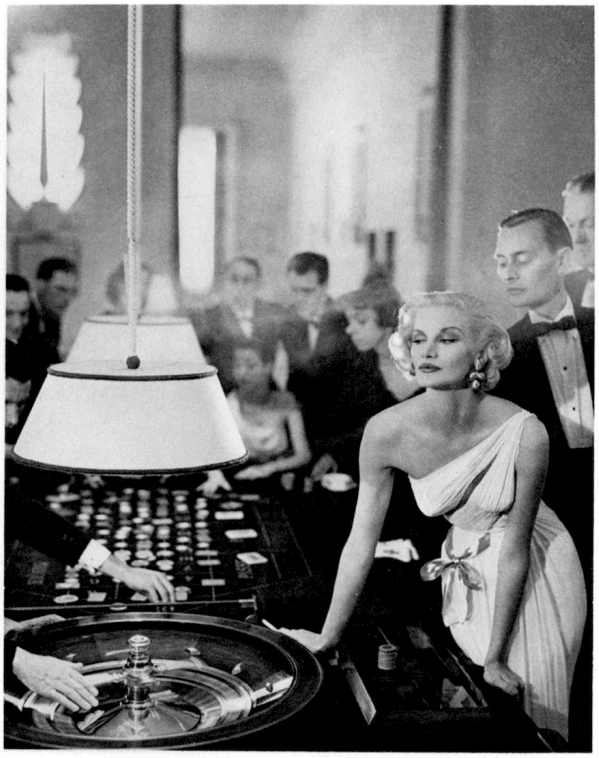
The diffused light from a north window or skylight is excellent. Or you might photograph your model in the open shade of a building, against a plain, light-colored background. [We shall have more to say about backgrounds in the following pages.] Many outstanding fashion pictures have been taken in a simple "outdoor studio" like this. Or you might shoot on a hazy or overcast day. Bring along a large cardboard reflector [with one side white and the other side covered with aluminum foil, as described in the lesson on outdoor lighting]. Use this if you need even softer shadows and lower contrast.

Indoors, bouncelight from floods or flash often is a good choice because of its soft, pleasing quality. Bounce electronic flash, in particular, is the choice of many fashion photographers because it enables you to stop action and you can use it with either black-and-white or daylight-type color-transparency film.

Avedon also uses his "beauty light" [demonstrated in the lesson on portraits] with striking effect in fashion work. This light, as you may remember, is a large, powerful, diffused flood, and is employed to create shadows that delineate the contours of a subject's face and figure. We'll show you how to apply it in fashion photography later in this lesson.

Of course, some fashion illustrations may require a large, elaborate lighting setup. But, by and large, you can do excellent work with the very simple means we have mentioned.

Small cameras: Much fashion photography can best be done with a small camera such as a roll-film twin-lens or single-lens reflex. You might choose to use this kind of equipment hand-held on location when your goal is to get lively, spontaneous-looking fashion pictures. Here, for example, Avedon used a twin-lens reflex because he wanted to work quickly and shoot a number of action poses from different angles against the background of the Paris streets. Note how this angle emphasizes the tubular skirt and low hemline.
[Courtesy *Harper's Bazaar*]



Large cameras: The more studied, deliberate kind of fashion picture sometimes is made with a large tripod-mounted camera such as a 4x5 or 8x10 view camera. Avedon supplemented the available light with floods, carefully posed his models, and used shallow depth of field to mute the background details. As a result the fluted folds of the dress–an important fashion point–stand out clearly and strongly.
[Courtesy *Harper's Bazaar*]

Useful types of lighting for fashion photography

Diffused daylight: Outdoor illumination on a hazy or bright cloudy day is ideal for showing tonal values and details of design. Shadows will be strong enough to model the clothing but not so harsh that they create a confusing pattern. Avedon used diffused daylight to make this picture, and chose the steps of a building as a simple, pleasing background, subduing it by deliberate overexposure so the dark coat would stand out. The model's pose clearly reveals the fashion story here–the silhouette and deep pleats of the coat.
[Courtesy *Harper's Bazaar*]

Window light: Illumination from a large window or skylight can be as beautiful as it is simple and inexpensive. Avedon took this picture in a studio with an overhead skylight, using only daylight to softly illuminate the graceful folds of an evening dress. To make your own temporary daylight studio, find an adequately large room that has big windows. A northern exposure is desirable, so you won't get harsh, direct sunlight. Otherwise you can diffuse the window light with a sheet or large piece of white muslin.
[Courtesy *Harper's Bazaar*]

Bouncelight: Bouncelight–from conventional or electronic flash or flood–is another good soft, flattering type of lighting for indoor fashion photography. For this picture, Bert Stern bounced light from four electronic-flash units off the background, and light from a fifth off a white cardboard reflector placed in front of the models and to the left. Remember–bounce flash is *not* perfectly flat; it is soft but directional. You can control its direction by the angle and position of the bounce surface.
[Courtesy *Vogue,* ©1963, Condé Nast Publications, Inc.]

Single flood: Not all fashion pictures require soft lighting. Sometimes you might choose a bold, contrasty type of lighting to emphasize the folds or texture of fabric, as Avedon did here. Using his "beauty light"–a single large, diffused flood–he placed it high and to the right to model the folds of the turban. Generally, a strongly directional source of light is suitable only if the garment is solid in tone or has a subdued pattern. On a boldly patterned material, dark, distinct shadows may create a choppy, confused effect.
[Courtesy *Harper's Bazaar*]

Backgrounds and props

"Keep your backgrounds and props simple," is Richard Avedon's advice. "Don't let the viewer's interest wander away from the model and clothes."

In studio pictures, the best way to make the viewer's attention stay on your subject is to do your shooting in a bare room with white or gray walls. If you don't have such a room available, you can make a satisfactory work area with white seamless paper, and the help of white cardboard or foil-covered reflectors. Roll the paper in a sweep from ceiling to floor, extend it under your model, and tape it in place. Use the reflectors for bouncing your floods or electronic flash. These reflectors can be clamped to light-stands so you can move them around and place them where you wish. If you shoot pictures in a department store or dress shop, you can easily improvise a similar "studio" on the spot.

Sometimes you may want to add a few simple props that will contribute to the meaning of the picture–for example, a beach umbrella or gaily colored towel for a bathing-suit picture, or a table setting for a hostess-gown illustration. A sound rule to follow is this: *Don't put anything in without a good reason.* Be sure that your props support the picture theme and are appropriate for the clothing shown.

When you make fashion shots outdoors, you can include the background as an element of your picture. However, here, too, you must follow the guiding principle of simplicity. *Use* the background but *subdue* it to the extent that it won't distract from model and clothes. For example, if you're photographing beachwear on location, just a suggestion of sand and water in the distance may be enough to establish locale and mood.

If your background is a cluttered or busy one, such as a city street, it's often a good idea to subdue it by selective focus. Set your depth of field and focus carefully so that the model and clothes are sharp but the surroundings are blurred. If the background is bright, you might pose the model in shade and expose for this less intense light, thus overexposing the background to subordinate it. Another useful method is to choose a low camera angle and shoot against the plain sky, including just enough identifying objects to suggest the locale.

Experiment with different shooting locations to give your work freshness and change of pace. Look around you for interesting backgrounds–the lobby or steps of a public building, the entrance to a country club, a stretch of shoreline, a split-rail fence, or outcropping of rock on a hillside. Then decide what type of clothing you would display in each setting.

The following photographs by your Faculty show a variety of outdoor locations as well as studio backgrounds. In each case there's a reason for the choice of locale. When you set up your own fashion pictures, make it a rule to combine a subject and background so that *the clothes and model always dominate.*

To put maximum emphasis on your subject, use a plain white background, as Avedon did in this offbeat fashion picture designed to startle and amuse the viewer–and suggest the attractiveness of the model's costume. Seamless white paper is most convenient because it's easy to make it lie flat. Hang the roll high enough so it's out of camera range, and bring it down to the floor and forward to form a horizonless sweep. [A pronounced horizon line or demarcation between floor and wall can be distracting.]

The photographer used relatively flat, bounced electronic-flash illumination to stop the action here. By bouncing light from two flash units off the background and deliberately overexposing it, he created the effect of the figures floating in space. They also are illuminated from the front by a single flash bounced off a large white reflector. [Courtesy *Harper's Bazaar*]

If a blank white background is too stark for the effect you want, use a fabric or wall-covering material that has a subdued texture or variations in tone. Irving Penn found the background material for this lovely photograph in an old-fashioned portrait studio in Paris, where he took a series of fashion shots by the illumination from a large skylight. The background was light enough to make the shape of the dress–an important fashion point–stand out clearly. The curves of the collar–also an important feature–are repeated by the model's gracefully extended arms. [For directions on how to make a painted background, see the lesson on professional procedures.] [Courtesy *Vogue,* ©1950, Condé Nast Publications, Inc.]

Outdoor backgrounds for fashion pictures don't always need to be subdued, if you handle your picture elements carefully. Here, for example, Avedon posed his models against a large, boldly lettered sign in a Paris street. The jagged lettering, seen almost as an abstract design, suggests frenetic night life and is a very strong and active element in the composition. The photographer calls attention to the girl by placing her at a point where powerful lines of direction converge. Her dress–the reason for the picture–stands out strongly by its value contrast with surrounding tones. The man's dark suit, on the other hand, is not clearly defined and tends to blend into parts of the background.
[Courtesy *Harper's Bazaar*]

For this indoor scene Avedon posed his models leaning against a bar in a nightclub. He used a view camera and a large aperture for shallow depth of field. Focusing selectively on the models, he kept them very sharp while subduing the surroundings to a romantic softness. A floodlight in front lights the models strongly to reveal details in the dress, while a spotlight behind them glows through the smoke and separates them from the dark background. [The photographer had assistants puff cigarettes to produce the smoke.] A second spot at the right put highlights on the mirror of the bar and the woman at far right. Notice also the skillful use of a prop–the girl's cigarette holder, with its drift of smoke leading into the smoky haze behind her.
[Courtesy *Harper's Bazaar*]

Here's another good example of how a real background can contribute to a fashion picture. A French dress house came out with a new robe based on a Moroccan design and Penn photographed it in Marrakech, in this authentic setting.

Penn posed his model in the hall of a Moroccan palace. She is preparing mint tea in the traditional Moroccan fashion [with every detail of the service checked for accuracy]. While the props and background are more ornate than you might usually choose for a fashion picture, they contribute importantly to the picture's story–and they work exceptionally well because the garment is simple, without pattern or conspicuous ornaments. The photographer's only illumination came from daylight through the palace windows.

Authentic props and surroundings can give your fashion pictures a strong story-telling quality that may be suitable for high-fashion editorial use, as here. However, for less sophisticated magazines, newspapers, and most advertising work, simple or plain backgrounds often are best. Keep in mind your picture's use, as well as the fashion points, when you select the background, props, and lighting.
[Courtesy *Vogue*, ©1951, Condé Nast Publications, Inc.]

Models for fashion photography

When you plan a fashion photograph, one of your first steps must be to select a model who can display the clothes to best advantage. An elegant evening gown is only a piece of fabric until a suitable model's figure brings out its form and lines. Even an ordinary dress can seem new and exciting when worn by the right model in the right pose. Clothes and model are intimately related parts of your fashion picture; each must complement and enhance the other.

What are the qualities you should seek in a fashion model? At the top of the profession are a few versatile women who "look good in anything"–sports dresses, evening clothes, or slacks. They are highly paid professionals who live and work in the fashion centers of the world and are much in demand. Although you may not be able to afford the services of these skilled professionals until you become well established in fashion photography, they do provide standards by which you can judge prospective models in your own community. Let's see what these standards are.

A fashion model is usually somewhat taller and thinner than the average girl. She'll probably be about 5 feet 9 inches tall and weigh no more than about 115 pounds. Remember that the camera tends to widen the figure and add pounds to it. Hence leanness, and height to go with it, usually are desirable in fashion models.

Most fashion clothing samples come in size 12, which can be adapted to a girl of these general dimensions. Caution: Don't confuse fitting a model for a fashion photograph with fitting a woman for clothes she might go out and wear. Your only concern is *how the clothes look in the picture.* See the next column for things you can do to adjust the garment to fit the model for photographs.

Most good fashion models have a fairly prominent bone structure and a rangy build, providing good planes and surfaces for highlights and shadows. [Plump, rounded figures tend to flatten out in photographs.] Their shoulders probably are somewhat wider than average, so that clothes hang well, although they may have to be pinned into place around the waist and hips.

A model needn't be pretty in the conventional sense of the word. It is far more important that she have pleasing, interesting features, without any defect or blemish which the camera might exaggerate. A face with strong but graceful bone structure–especially in the cheekbones–usually photographs best in fashion close-ups. Of course, the model should be able to appear at ease in the clothes she is showing. She should move gracefully, stand erect but not stiff, and know how to sit, bend at the waist, or cross her legs without awkwardness.

If the model resembles some woman of fashion who is in the public eye, so much the better. The fashion pacesetter of the moment might be a movie star, a society personality, or a political leader's wife, whose taste in clothes and way of wearing them represent the ideal of many women. Imitation is at the heart of the fashion business, and if your model reminds viewers of current fashion leaders your pictures will have added interest and salability.

When you choose a model, keep in mind the *type* of clothes you plan to photograph. Some women look their best in sportswear, others in evening clothes. Some have the features and complexion that go with a costume of Spanish or Oriental design. Others seem made for showing clothes with a typically American look. If the girl already has done some modeling she'll probably have a portfolio of pictures to show you. These pictures can help you decide what type of clothing she can wear most effectively.

There are no exact rules to follow in this matter of fitting the model to the costume. Your best guide is the fashion sense we discussed earlier, which you can develop only through study and observation. Always try to screen several prospects before making a choice and don't let your personal standards of feminine beauty influence your decision. As Avedon puts it, "The only thing that matters is that the model should *look wonderful in the clothes you're photographing right now.*"

How to find fashion models

If your skill brings you fashion assignments, you'll probably work closely with one or more model agencies. They'll supply trained models to your general specifications and your client will absorb the fee. Until then, however, you may have to find models among the fashion-conscious women in your community who are willing to pose in exchange for prints, experience, publicity, or the pleasure of appearing in fine clothes.

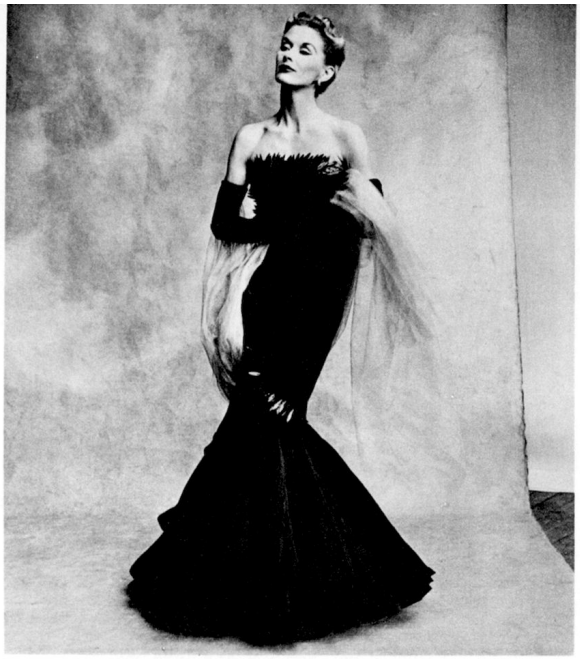
If you're near a city that has model agencies, call them and see if you can arrange to take test shots of newcomers. Often, girls who are just breaking into the field will be willing to pose in return for a set of prints they can add to their portfolios.

Department-store buyers and dress-shop owners also can be helpful. They sometimes hold fashion shows, using local models, and can put you in touch with women in the area who may be willing to pose. [Community newspapers like to run fashion pictures that feature local people. By working through retailers in your area you may be able to secure models and break into print at the same time.] A local Little Theater group or summer-stock company might also provide possibilities. Women with training in ballet or dramatics often make excellent fashion models. But avoid the risk of spoiling your picture by using models who may be attractive in other ways but don't meet the requirements for fashion modeling. Use the general specifications we gave you earlier as your guide.

What to do if the clothes don't fit

Here are ways you can correct an improper fit. Some of these methods are very simple and require no special knowledge. Others call for skill in making alterations. If you don't have this skill yourself, perhaps the model can help, or you can use the aid of a fashion assistant, your wife, or some other person who knows something about dressmaking.

1. *If the dress is too loose,* pull it tighter and clamp the folded cloth in position with spring-type clothespins. Of course, the clothespins should be placed so they aren't visible to the camera. This is one of the easiest and most useful methods available to a fashion photographer, and Avedon demonstrates it later in this lesson.
2. *If the model is too thin,* you can use crumpled facial tissue to pad areas that need filling out. Use the minimum amount of padding necessary and smooth it out to avoid a lumpy look.
3. *If the dress is too tight,* open a seam at the back, adjust to fit, and pin the dress together, using dressmaker's pins.
4. *When the skirt is too long,* try pinning it under the belt so it reaches the right level. If that won't work, turn the hem up, pin it in place, and press it. If you don't need to show the full figure, crop out the hemline.
5. *If the skirt is too short,* try a seated pose that doesn't clearly reveal the hemline.
6. *To smooth out wrinkles* when the hemline isn't to show in your picture, clip weights to the hem. These will pull the dress taut.
7. *If nothing else works,* cover up the defect in the dress. Ask the model to place her hand, arm, handbag, etc., over the area you want to conceal, or throw a coat or sweater over one shoulder so that it hides the part you don't want to show.



The aloof beauty of this high-fashion model fits the costume and setting–an elegant Paris evening gown against a background of rich simplicity. Note the model's high cheekbones, pronounced chin line, and graceful neck and shoulders–physical qualities you should look for when you select a model.

Another attribute of a good model is her ability to act out the mood of the picture. Here the model is holding still for a one-second exposure, but her pose gives the impression that she is in motion–perhaps making an entrance at a dinner party.

By photographing her from a low angle, Irving Penn showed the sweep of her skirt and gave her figure added height. This is often the most flattering angle to choose when you want to show the model's full figure.

[Courtesy *Vogue*, ©1950, Condé Nast Publications, Inc.]

Photographers who cover the fashion openings in Paris, New York, and other centers often use celebrities to launch a new creation in clothes design, accessories, or makeup. Women are more likely to accept a radical style if they see it displayed by someone whose appearance and taste they admire. In this photograph, for instance, Avedon featured actress Audrey Hepburn–a fashion leader of the moment–wearing a summer evening cape made of artificial flowers and an unusual pyramid hairdo at a Paris opening.

Watch for these advance showings in the fashion magazines you read. Whether you like them or not, they're your clues to what women will be wearing next season–and what you may be called upon to photograph. If you can find a model who resembles the celebrity who introduced the new design, your work will have increased value.

[Courtesy *Harper's Bazaar*]

This model typifies the young American matron. Her fresh good looks and winsome expression are in keeping with the mood Penn wanted to evoke for displaying this less formal kind of outfit.

When details of tailoring and texture are important to your fashion story, you'll probably have to move in close and shoot head-on, as Penn did here. The turned-back lapel shows the relationship of coat and dress, and the model's extended arms reveal the cut of the sleeves. Note how sidelighting has brought out the feel of the fabric and the delicate flower pattern on the belt and skirt.

[Courtesy *Vogue*, ©1962, Condé Nast Publications, Inc.]

If you can find a model whose facial characteristics suggest the nature of the clothes she's displaying, you'll give your picture added force and meaning. For example, Avedon shot this picture to illustrate a fashion magazine article titled "The Beautiful Barbarian," announcing the Tartar influence in women's clothing. The fashion shown is a new split skirt, which the editors called "harem pants." The Oriental cast of the girl's features carries out the Eastern feeling, and her pose, in the manner of a Tartar warrior, also helps. Note how graceful and poised her figure is, despite the difficult crouching position–and how the photographer has emphasized an exotically decorated shoe that is part of the costume.

[Courtesy *Harper's Bazaar*]

Shooting for catalogs

Catalogs offer good opportunities for any photographer trying to break into fashion work. Catalogs containing fashion pictures are produced by many manufacturers and wholesale and retail distributors of clothing and accessories, and catalog-type photographs are also used in huge quantities in sales brochures, mailing pieces, and other promotional literature. The market is big, and the requirements are less specialized than they are for the high-fashion magazines. If you can learn to meet the demands of catalog photography you can find it a rewarding field–and possibly the path to bigger assignments.

The basic purpose of a catalog photograph is to *show what the merchandise looks like.* Because catalog photographs often are run small [hundreds or even thousands may be included in one publication] and reproduced by relatively inexpensive printing methods, they must be sharp and well lighted to show up properly. Simplicity and clarity are qualities to strive for in the catalog pictures you shoot.

Many catalogs are designed to appeal to a mass market, so the styles shown are often less extreme than the ones illustrated in high-fashion magazines. The models should be appealing but less exotic or sophisticated in appearance. Extremes in makeup or hair style usually are to be avoided in this kind of work.

This doesn't mean, however, that catalog pictures can't be done with imagination and good taste. Standards are improving in this field, and many leading catalog publishers now require something more than just a straightforward shot of a model standing in a stock pose and wearing the garment. A lively, animated effect is often desired, with simple props, backgrounds, and story-telling situations to make the picture more appealing.

On these two pages Richard Beattie demonstrates a good basic method for shooting catalog fashions. Although he took these pictures for a manufacturer of girls' and women's sleepwear, the method can be adapted to almost any other kind of fashion work. [Later in the lesson we show you catalog pictures of men's fashions taken by Richard Avedon.]

Standardizing your procedures

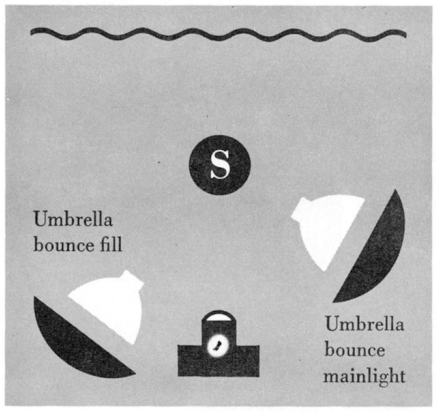
Catalog publishers need good pictures–but often these must be shot at a low cost per picture. To handle a typical catalog assignment–and make a profit–you usually must *standardize* your procedures so you can turn out pictures at a fast rate.

A good background that will work for most subjects is seamless white paper arranged in a horizonless sweep behind and under the subject. Lighting should be simple and easily controlled. Electronic flash often is ideal because it minimizes the danger of subject or camera motion. Moreover, it gives you enough light to use a small aperture for adequate depth of field, and it permits you to shoot again and again without stopping to change flashbulbs. [However, catalog pictures can be made with floods and spots or conventional flash, too.]

Place the mainlight to create shadows that indicate the form of the product–a 45-degree position often is good. Then use a fill-in light to soften the shadows and reveal detail in them. *Umbrella bounce units* such as we described in the preceding lesson are excellent for catalog work and were used by Beattie for all the fashion pictures shown here.

With your lights in position, pose a stand-in model in front of the background and shoot a number of bracketed exposures. Process the film and look at your negatives carefully to determine which exposure gave you best density, contrast, and sharpness. Set your camera for that exposure and keep it there. This frees you to concentrate on the details of your subject matter.

A 120 roll-film reflex camera often is a good choice for shooting a large number of catalog pictures, just as it is for taking other kinds of fashion shots. Reflex viewing permits you to focus and compose quickly, and you can expose a dozen pictures in rapid succession. It enables you to work swiftly and inexpensively enough to shoot more than one variation of each subject, and thus give your client a choice. [For some examples of the possibilities, see the contact proof sheet reproduced on the opposite page.] Also, the negative is large enough to make it relatively easy to obtain a sharp, fine-grain picture.



Beattie used these two electronic-flash umbrella bounce units to take the accompanying fashion photographs. As shown in the diagram, he employed one as a mainlight in a 45-degree right position. This provided the modeling he wanted to bring out the folds and texture of the garments. The second unit was placed on the left of the camera and close to it, as a fill-in light. A relatively low lighting ratio with soft, "open" shadows usually is best for catalog fashions, where you need good, easy-to-reproduce details throughout.

Here's a typical result that Beattie's basic catalog shooting setup gives him. Notice the simple background and soft lighting, with just enough shadows to bring out form and texture. The photographer chose balloons as appropriate props for this picture of a child's pajamas. Shooting the subject straight on shows the cut and pattern of the garment clearly, and the pose is lively and natural-looking.

Shoot more than one variation of pose and expression

Catalog fashion pictures usually must be shot quickly and inexpensively–but, if you standardize your working procedure as we describe, you can still provide the client with a variety of poses to choose from. For example, here's a contact proof sheet showing twelve exposures on one roll of 120 film shot by Beattie while doing a catalog for a manufacturer of pajamas and housecoats. Even though he exposed the entire roll within the space of a few minutes, see the variety of poses and expressions he got.

For the girl in pajamas the photographer used a satin comforter as a prop–its gleaming surface contrasted in an interesting way with the garment, and holding it gave the model something to do with her hands. After shooting four variations, he felt he had enough good pictures, and asked the second model to step into place. For the next eight shots he used two amusing-looking dressmaker's heads. This gave the model a "bit of business" to do, and led to a number of relaxed, lively poses. In each of these pictures, Beattie asked the model to stand with her body turned toward the camera because he wanted to give a full front view of the garments. But varied positions of arms, legs, and head keep the poses from being too static.
[All photographs courtesy Modern Globe, Lollipop]

Richard Avedon demonstrates how to shoot fashion pictures

The photograph at right shows the basic ingredients of almost any fashion picture you might make–a dress, a girl, and a camera. Whether or not it turns out to be an outstanding fashion picture, however, depends on something else–*the imagination and skill you bring to the assignment.*

Both editorial and advertising clients today want fashion pictures that are animated and attention-getting–but also give important information about the clothes. On the following pages, Richard Avedon shows you ways to achieve this with very simple means–means that you can duplicate with minimum expense and space.

Throughout this series, Avedon worked with the same model and basic shift dress. He did this to emphasize the number of different ways you can *interpret* a garment–depending on the purpose of your photograph–by *pose, accessories,* and *lighting.* The treatments range from evenly lighted, animated effects that would be suitable for most editorial illustration, to more dramatic and offbeat effects such as you might see on high-fashion magazine covers. As the photographer shows, the dress has a variety of uses, ranging from summer streetwear to beach costume.

For his high-key pictures, like the ones on the opposite page, Avedon created a diffused, soft, relatively shadowless light by bouncing electronic flash off white walls and flats in his studio. Later, when he wanted to shift to an atmosphere of mystery and excitement, he used a 1,000-watt flood to build up highlights and shadows.

Notice in these pictures the important role that accessories can play in suggesting the use of a garment and creating atmosphere. Choose accessories with the same care you use in arranging your lighting and posing your model.

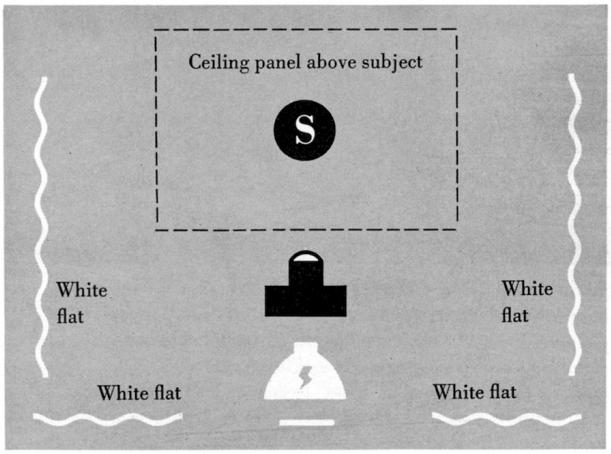
In this demonstration Avedon has recorded the don'ts as well as the do's of fashion posing so you can easily recognize the most common errors and avoid them.

Many of the methods shown here are basic to all fashion photography. Adapt them to your own needs in terms of the fashion points you want to emphasize and the audience–mass or sophisticated–you want to reach.

The dress: It's a plain white shift dress, simple in cut and tailoring. You may often have to feature clothing like this, that has little novelty or distinction in material or design. If the dress does not have some particularly interesting or newsworthy feature to play up, your challenge is to make it *seem* important and desirable by the way you present it to the viewer. Your tools are the picture ideas you create, the accessories you choose, and your adroit use of pose, lighting, and background. "A good fashion picture," Avedon says, "is an unusual approach to a usual dress."

The girl: She is Suzy Parker, one of the leading New York fashion models. A skilled professional like Miss Parker can adapt quickly to any picture situation and work with a minimum of direction. But even an experienced model will look to you, the photographer, for guidance and encouragement. Make the model your active partner in planning and carrying out the picture. Brief her thoroughly on the purpose of your assignment and invite her suggestions.

The camera: A twin-lens reflex with an 80-mm f/2.8 lens was used throughout this demonstration. For studio work, mount your camera on a tripod with a pan head that permits swinging and tilting, so that you can change camera angle rapidly. With electronic flash, which reduces the possibility of blur due to camera shake, you may prefer the freedom and mobility of hand-held shooting. The film used was a very fine-grain panchromatic type.



The basic lighting setup: To shoot electronic-flash fashion pictures, Avedon often uses the setup shown in the diagram. He builds a "cage" for bouncelight with a sweep of white seamless paper, a white-painted flat on each side of the subject, two more at left and right, in front of the subject, and a white-painted panel suspended from the ceiling above the subject. [You can get a similar effect without flats in a *small* studio or room with white walls and ceiling.]

The only source of illumination is an electronic-flash unit; the light is bounced off a white cardboard reflector behind the camera. The cardboard can be clipped to a light-stand and positioned close to the flash. The flash is placed in a high frontlight position. To get more modeling, raise it higher. To flatten the lighting, lower the flash closer to camera height.

This kind of setup provides a soft, universal lighting because light is reflected off all the white surfaces surrounding the subject.

Putting action into your fashion pictures

First, Avedon planned to show the dress as daytime streetwear in an animated picture for general editorial use. To carry out the streetwear theme, he decided to use gloves, a big hat, a scarf, and belt as accessories, and to show the model walking into the picture. He marked a spot on the studio floor and asked her to stand there while he focused on her. Then he told her to move out of camera range and walk toward the spot. When she reached it, he shot. [This is a good method for getting controlled action in your pictures.] The accompanying reproductions of his full-frame contact prints show some of the things to watch for in "walking" pictures.

Wrong: In general, avoid having the model walk directly toward the camera. As you can see, her hips appear too wide, her legs are too far apart, and the position of her arms is stiff and unnatural. Have her turn her hips and shoulders, as she'd do when walking down the street and talking to a companion, and make sure her gestures are easy and graceful.

Wrong: Here the model has turned *too* much in relation to camera position. As a result her figure is badly foreshortened; her left arm and leg look grotesquely small and her right shoulder is too prominent. When a model is carrying a hat, handbag, or other accessory, don't let her thrust it directly at the camera or it may look disproportionately large, as here. Watch the hem of the skirt, too, to be sure it doesn't hike up.

Almost right: Now the model has turned three-quarters to the camera, with arms, legs, and hat at more nearly equal distances from the camera. Everything is in proportion, and the picture still has animation. Note the clear definition of waist, sleeves, and hemline–fashion points that give important information about the dress. *But the dress still looks shorter than it should.* This picture probably would have to be retouched to lengthen the skirt.

Right: The photographer has tried a variation this time, with the model coming from the other direction to the prefocused spot. Compare this graceful, ballet-like movement with the static pose in the picture above. Because she leaned forward from the waist, the skirt is now the proper length.

Avedon turned an electric fan on the model during these shots to impart a little motion to her hair, as if she was strolling outside on a breezy day.

Using props

Sometimes a simple prop will add a touch of novelty to your picture and help to catch the viewer's attention. [A prop can also help to indicate the *use* of the dress.] Here a pair of sunglasses does the trick in an intriguing way and without distracting attention from the garment. Note that the model has turned slightly to reveal the lines of the dress in silhouette. The first picture is better than the second from a fashion standpoint because it shows the cut of the sleeve more clearly.

Animated poses

Another way to put action into your pictures is to have the model assume an animated pose, so that she *seems* to be in motion even though she remains in one position. This method is particularly useful when you're working *without* the fast light of electronic flash, and can't count on freezing the model's movements. Below, Avedon demonstrates some of the do's and don'ts of capturing an animated pose. He has added accessories for this sequence to suggest a somewhat more dressed-up appearance.

Wrong: This head-on picture has some of the same faults as the first walking picture on the preceding page. The model's legs are too far apart at the knees, her gesture is not feminine, her fist is clenched, and the skirt appears too short. Probably she was too tense. When this happens, stop shooting and call a halt until the model is more relaxed.

Wrong: This time the model has exaggerated the pose Avedon called for by raising her knee too high and placing her legs too far apart. As a result the dress is bunched up and wrinkled. When you're showing the full figure, always watch the hemline. Here, too much of the area above the knee is exposed. Another error–her shoes and ankles are awkwardly turned.

Wrong: Don't let one leg conceal the other, as shown here–the pose is curious and makes the model seem precariously balanced. Observe, too, that she's covering up the neckline of the dress with her left hand and concealing a wide waistline by crouching. You can use both of these devices *if you want to hide defects in the garment.* Otherwise, be sure the model displays the dress fully and clearly.

Right: Now the photographer has caught animation without the errors that marred the earlier pictures. The model's figure has rhythmic lines, the dress hangs pleasingly, the legs are close together but fully visible. And note how her extended arms and tilted head provide a clear view of the dress, hat, and scarf.

Do the model's legs look right?

Good leg positions are important in fashion pictures that show the full figure—and critical when you're making detail photographs of shoes and stockings. Always check the appearance of the legs carefully on your viewfinder before you expose. For foot pictures, give the model something outside the picture area to hold onto—a bar, ladder, or the back of a chair. By steadying herself she can maintain a difficult leg pose more easily. The following close-ups illustrate some of the common errors that can occur in both front and side views of legs and feet, and what you should do to get a good shot.

Wrong: When you're shooting from the front, watch for turned-out feet [duck walk]. They generally look awkward and unfeminine.

Wrong: Slightly turned-in feet with the legs apart [pigeon-toed] also are ungraceful. This position tends to make the legs look bowed.

Right: These legs—one slightly overlapping but not concealing the other—are just right for a straight-on shot. They follow the natural curve of the figure and show the fit of the dress. The skirt has been pinned to accentuate the line from thigh to toe. Lifting and turning one foot a bit usually makes a better composition than having both feet flat on the ground.

Wrong: Although this side view of the model walking isn't distorted as in some previous examples, the position of the feet is awkward. The back shoe is buckled and the hemline looks unattractive.

Wrong: This picture has better action, but the photographer has allowed the skirt to rise too high above the knee. If you look closely you'll see the inside border of the dress—something you usually should avoid in fashion photography.

Right: The hemline is now in order and the legs are attractively posed. By catching the model with her weight balanced on the ball of her left foot, the photographer has given this picture pleasing animation that shows the shoes to advantage.

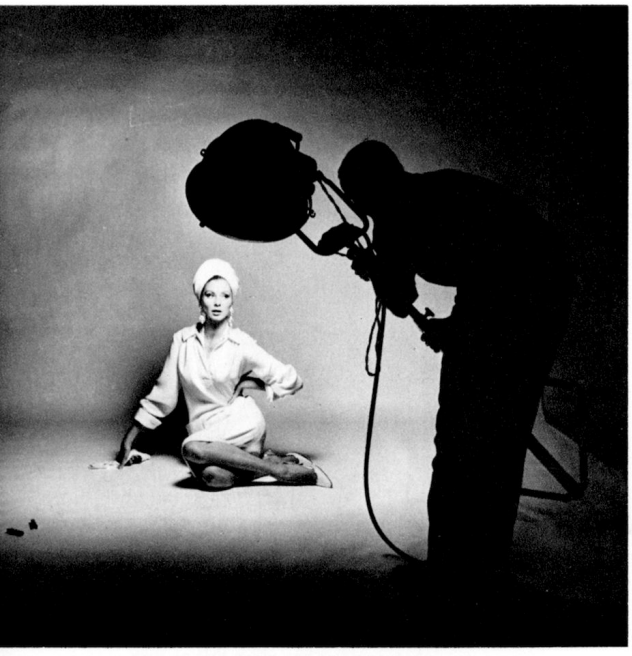
How to use a 'beauty light' for your fashion pictures

In the earlier pictures in this demonstration, Avedon featured the dress as a daytime garment. He chose relatively flat, high-key lighting from bounce electronic flash to suggest the airiness of a bright spring or summer day. For the sequence on this page, however, he wanted to show the garment as a glamorous evening dress. This required different accessories—a turban, long earrings, and a necklace—and a change in lighting to create a more romantic mood, with strong highlights and shadows.

A good, simple way to obtain this effect is to use a single flood in a large reflector with a diffusion screen [the "beauty light" demonstrated in the lesson on portraits]. For best results with this type of lighting, you need an assistant to move the flood around, playing it over the model, as shown below. As your assistant changes the position of the light, look for highlights and shadows that emphasize the important features of the garment and the beauty of your model. You might, for example, want to bring out the interesting texture of a material, emphasize a fold, or call attention to a neckline or sleeve.

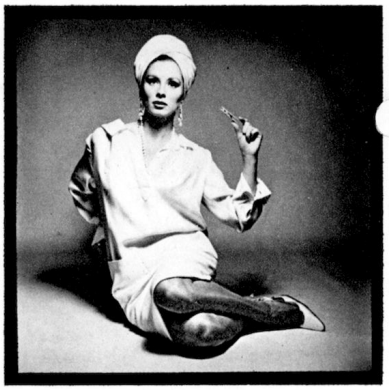
Place the model at least six feet from the wall to separate her from the background, and keep your light high enough, so you don't get heavy background shadows [unless you want them for dramatic contrast].

When you use the beauty light you have to be especially careful to avoid bad wrinkles and folds as this lighting is strongly directional and makes them appear more pronounced. You can often correct them by having the model adjust her pose or by pinning the garment from behind, if the fit is wrong. Avedon demonstrates both approaches in these pictures.



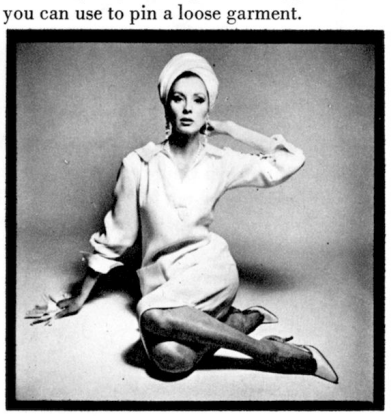
By leaning forward, the model has created a more dynamic pose and produced interesting folds that are emphasized by the lighting. In shooting a fashion picture, start with the garment, as Avedon did here, and get that looking right. Then work with the model, trying for good poses and expressions for the final picture.

This straight-on picture does little for either the model or the dress. The curves of her figure are lost under the blocky lines of the garment when it's displayed in this rigid, unimaginative pose. The placement of her hands is self-conscious; she seems to be holding the dress up. And the camera is too far away to catch details of dress and accessories.

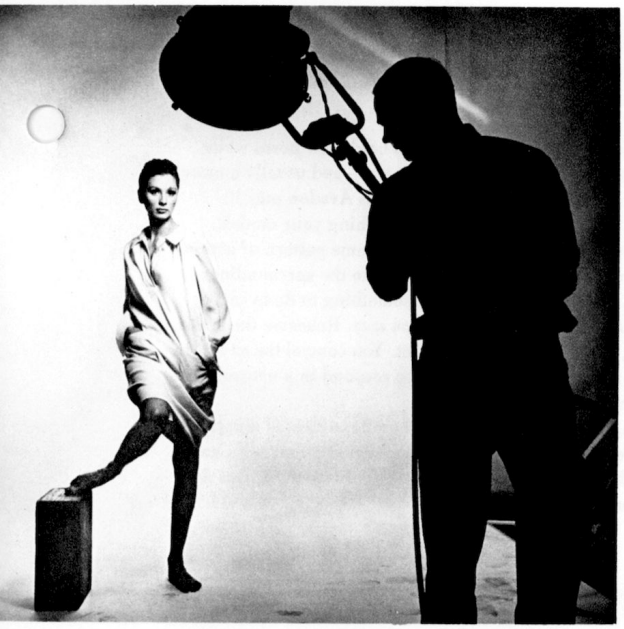


Now the photographer has tried a sitting position and moved in closer, with the light shining down on the model. By turning her shoulders, hips, and legs, she has given shape to the garment. But unsightly folds and wrinkles have developed, which are accentuated by the directional lighting. The model is holding the dress in around the waist with her right hand, an arrangement that wouldn't do in a picture made for a client. She's showing a metal-spring clothespin of the type you can use to pin a loose garment.

This rear view shows the dress pinned along the back. Gather the loose material into a single fold so that the dress follows the contours of the model's figure. Then secure it with the clothespins.



Now the model is free to adjust her pose without concern for the fit of the dress. To emphasize the cut of the sleeve, Avedon asked her to raise one hand to her head. However, he wasn't satisfied with this pose because it seemed somewhat static and he felt that more folds in the upper part of the dress would better reveal the fabric.



Creating a high-fashion picture

The more sophisticated publications feature the newest [and often extreme] fashions. They frequently like a treatment that emphasizes a mood, a pose, the spirit of the fashion, or some unusual effect rather than the details of the garment. This is the so-called high-fashion picture. Here Avedon demonstrates how you can achieve this by very simple methods involving lighting, pose, and camera angle. He used the same basic dress as before, but this time he shows it in another role–as a loose-fitting robe or tunic that a woman might wear at the beach over a swimming suit. The change to simple makeup and hairdo is in keeping with this role.

The photographer wanted a combination of strongly directional lighting and a high-key effect to suggest the bright sunlight at the beach. To get this he combined the hand-held beauty light [used in the same way as he has just demonstrated] with two floods, each at 45 degrees, on the background. These floods were equipped with barndoors to keep them from shining into the camera lens. In the accompanying illustration, notice that the two additional lights give a very bright white background and eliminate the shadow of the model cast by the beauty light.

To get some variety in the poses, Avedon added a box for the model to place one foot on. [A prop like this can also help by giving the model something to lean or rest on.] He planned to compose the picture so the box wouldn't show, or could easily be cropped out during printing.

Avedon experimented with several camera angles and distances, deliberately introducing distortion for an unusual view of the model and dress.

For his final shot, the photographer chose a low camera angle to make the model look taller and give his picture the arresting quality that comes from seeing the human figure from an unusual viewpoint. To heighten the dynamic, foreshortened effect of the low camera angle, he had the model throw her head and shoulders back and thrust her right leg forward. Although you would not distort a figure like this for ordinary editorial or advertising purposes, it might be suitable for a high-fashion magazine–the purpose Avedon had in mind.

These three poses show a progression from a slight distance to a fairly close viewpoint as Avedon experimented with camera distance and angle. All three are interesting, and good for his purpose. Notice how the beauty light brings out the flesh tones in the model's face, neck, and bare leg. The black shadows contrast strongly with the bright background, giving the "sunny day" effect the photographer wanted. The folds in the garment help the composition, too, by making diagonal lines that follow the turn of the girl's body.

Working with more than one model

In both editorial and advertising work, you sometimes may find that you can get your fashion story across better by creating a situation in which several models take part. The clothes are still the center of attention, but now you are putting them in a social setting that your viewer can recognize and identify with. Although this type of treatment is more common in high-fashion work, it also may be used in pictures for less sophisticated publications.

To show a variety of sports costumes in use, for example, you might shoot a picture of a picnic at the beach. If your subject is evening clothes, you can add a note of realism by showing your fashionably dressed models at the theater [you could shoot on location or in your studio with suitable props]. A half-circle of admiring men posed around a model can make her cocktail dress seem more attractive and desirable.

One way to handle group fashion pictures is simply to place the models in assigned positions and tell them to hold their poses while you focus and shoot. A far more challenging way—and usually a more effective one—is to "make something happen," as Avedon puts it. This method calls for careful planning and coaching your models.

First, select a story theme for your picture—some pattern of action that will relate your models and their garments to the surroundings and to each other. Then give each of them something to do to carry out the theme—*but let them do it in their own way*. Rehearse the action several times and, when it seems right, shoot. You control the situation but still allow the models enough freedom to respond in a natural, unselfconscious manner.

In the following pictures the photographers have created a variety of story-telling themes. Note that in each the fashion points are clearly brought out, yet the pictures have a dramatic quality that catches and holds our attention.

A few days before he took this picture, Avedon noticed a young couple hurrying across the street to avoid a sudden spring shower. He tucked the idea away for future reference and here you see it applied. Using an umbrella would have made a more conventional picture; the extended newspaper adds a touch of freshness to the scene. [It is wise to make notes of ideas and situations you encounter that might be adapted to fashion shooting.]

While this picture seems quite casual, it was carefully rehearsed. Because he was shooting from a low camera angle, the photographer had to pay particular attention to the position of the woman model's legs, which show up prominently. During their practice session, he had her assume the stance shown here and then take six steps backward. At his signal she walked forward, counting her steps so her legs would be in just the right position when she reached the designated spot, on which he had prefocused.

Always arrange things so that your fashion points dominate. Here, for example, notice the sharp detail in the pattern and tailoring of the woman's suit. The man's suit does not compete because it is plain in pattern and partly in shadow.
[Courtesy *Harper's Bazaar*]

This is another example of a scene remembered from daily life and reenacted for a fashion purpose. The picture suggests that the models are tourists in Paris and the mother has just been up in the Eiffel Tower while the father and son remained below. Weaving little story themes like this into your pictures can help you show the clothes in use in a believable and appealing situation.

Shooting from a low angle, Avedon placed the darkly dressed woman against the sky so that her suit would stand out strongly. By showing her in the middle of the area, framed by the man and the tower, he made her and her dress emphatically the center of interest. The tower, softened by haze, comes through just enough to establish the locale without distracting our attention from the foreground figures. Avedon washed out most of the background by exposing for good detail in the fabric. The print was made on contrasty paper to lighten the background still more.
[Courtesy *Harper's Bazaar*]

In planning and carrying out fashion assignments you can adapt methods we demonstrated in press photography. Here, for example, Avedon has used *peak action* to give his picture dramatic force. He caught the amusement-park swing at the top of its arc, at 1/250 second, just before it started downward. The scene has an eye-stopping quality that calls attention to the model and her clothes. When you put peak action into your pictures, *be sure it doesn't overpower the fashion interest.* Note that the photographer had the model stand in the center of the swing, arm outstretched, so that we get a clear, full view of her tailored suit. The man's figure is deliberately obscured since he's only an "extra."
[Courtesy *Harper's Bazaar*]

A touch of humor can give your pictures a welcome change of pace. The fashion story in these two pictures was women's lounging attire, but instead of the usual setup of attractive woman and attentive male companion, Bert Stern worked out an amusing switch –the men are obviously more interested in what they're reading than in what the girls are wearing, and the girls' expressions show how they feel about it. When you photograph informal clothes like these, you have more freedom to pose your subjects in less conventional ways. Use this freedom to develop unusual picture situations, as the photographer did here.

Observe how Stern has used sidelighting to bring out the sculptured design of the model's blouse at far left and the rich texture of the chinchilla fur at left. The men's dark suits are unobtrusive by comparison. A sweep of white seamless paper and a few simple props were enough to set the scene.
[Courtesy *Vogue*, ©1963, Condé Nast Publications, Inc.]

Large groups are difficult to handle, and you probably shouldn't attempt a picture setup as complex as this until you've acquired considerable experience. However, the principles Avedon used here can be applied to many small group situations as well.

His purpose was to re-create for the readers of a high-fashion magazine the atmosphere of a Paris fashion opening, where buyers, reporters, photographers, and models crowd together in a festive atmosphere and launch the new designs.

Avedon invited to his studio in Paris some of the people who had attended the fashion openings a few days before. He marked off an area on the floor and had them line up, with those in back standing on blocks so they'd be visible.

Broad, even illumination often is best for lighting a large group. To achieve this effect, Avedon used bounce electronic flash from a number of units placed on each side of his camera.

With a group of models in an artificial situation, the photographer's problem is to keep them from freezing up. Avedon put a jazz recording on a record player and turned up the volume full blast. Then he and his assistants began to shout instructions. This "shock treatment" soon loosened up the guests.
[Courtesy *Harper's Bazaar*]

Lingerie

Another important type of clothing is lingerie–which includes the undergarments and night clothes that women wear. If you do much fashion work, particularly in the advertising field, you should be prepared to photograph nightgowns, slips, brassieres, girdles, and other so-called intimate apparel with the same skill and creativeness you bring to pictures of outer garments.

Not very long ago, lingerie photographs employing live models were frowned upon by many publications. The taboo has been lifted and the trend today is toward a franker, bolder use of the partially dressed figure. However, you should be conscious of the sometimes very fine line that separates glamour from vulgarity. You must learn to use the graceful contours of the female form to display the merchandise without letting your picture fall into the realm of "cheesecake" art. Aside from matters of taste, a picture that relies heavily on sensationalism cheapens the product and thus defeats its own purpose.

You can keep your lingerie photographs in good taste, and still make them lively and interesting, by careful attention to *lighting* and *pose*.

Lighting: Lingerie pictures usually should have an atmosphere of daintiness and femininity. For this purpose the soft illumination from bounced floods or bounced electronic flash often is your best choice. Diffused daylight from a window or skylight also is effective. Whatever the source, it's generally a good idea to keep your lighting relatively flat rather than directional. Avoid harsh highlights and black shadows, which tend to emphasize anatomical details and overpower the delicate designs and textures of lingerie materials.

Posing the figure: The fashion importance of some undergarments lies not just in their appearance but also in how they fulfill their *function*. The purpose of girdles, brassieres, and corsets, for example, is to control the figure. Hence your photograph must clearly reveal the *construction* of the garment as well as its decorative features. This will usually mean posing the model with the body partially turned to show both front and side details. Move in close for more complete reporting, or plan your picture so that it can be cropped to emphasize the garment and its details. You'll rarely need to show the full figure when you're featuring a girdle or bra.

To show the control qualities of the garment, have the model do something–brush her hair, tie a ribbon, put on a slipper, or make any natural gesture or movement that will place her body under slight stress. And be sure that her figure has a sleek, trim appearance which the viewer can attribute to the pictured girdle, corset, or other garment.

When you're photographing nightgowns, slips, and peignoirs, try to create an airy, ethereal atmosphere that will enhance the soft folds, delicate workmanship, and loose cut of the garments. Here you're stressing *freedom of movement* rather than figure control. You might have the model assume dance positions–the symbol of feminine grace. Or you might pose her in frank imitation of the figures in classical painting or statuary. In some of the following illustrations, Bert Stern and Richard Avedon have used these approaches to give their lingerie pictures a spirit of fantasy. These pictures report on the garments but at the same time they show them in an imaginative way. This blend of the real and the fanciful is an effective way to treat lingerie.

By giving the model something to do, you make your lingerie picture look more natural and animated. The graceful movements that accompany the act of dressing offer many possibilities. Here, Richard Beattie took his picture as the model was slipping on a petticoat. The featured product is underpants, which he stressed by taking a three-quarter view that shows both side and rear construction. Beattie played down the model by silhouetting her against the backlight and blurring her head and arms slightly with a soft-focus lens.
[Courtesy Modern Globe, Lollipop]

Avedon used stylized poses suggesting the modern dance in an extensive series of lingerie pictures he did for advertisements that were run in fashion magazines. In this shot, one of the series, he wanted to emphasize the graceful shape of the white garments. To get the desired effect, he chose a medium gray background for good value contrast and illuminated the model with soft frontlighting. Notice an unusual but effective violation of a photographic "rule"–Avedon deliberately posed his model close to the background. The shadow cast on the wall behind her contrasts with the white nightgown and peignoir, emphasizing their lines.
[Courtesy Vanity Fair]

To Bert Stern, the design of nightgowns and peignoirs recalled the loosely cut, free-flowing garments worn in ancient Greece. In these three high-fashion editorial pictures actress Julie Newmar carries out this classical theme in graceful poses suggested by figures in Greek sculpture. We're aware of the woman's body underneath the garments, yet the poses have dignity and taste—an effect you should try to achieve in your lingerie pictures. Note how the photographer has strengthened the feeling of motion by directing an electric fan at the model's hair.

Stern bounced electronic flash off the wall behind the model so that light shines through the fabric, emphasizing its sheerness. To take the pictures a step further away from reality, he used a fast, coarse-grained film that produced a textured effect in skin tones and fabric. The result is a partial silhouette that shows the lines of the figure without stressing physical details that might distract from the garment. [See the "bounce backlighting" demonstration in the previous lesson.]

When you photograph lingerie it's usually wise to avoid strong cross-lighting that may make the filmy material look wrinkled and heavy. Use bounced flood or flash, or diffused studio daylight. [Courtesy *Vogue*, ©1963, Condé Nast Publications, Inc.]

When the garment you're featuring has a very special purpose, like these ski pajamas, you can use props and background to make that purpose immediately apparent, as Richard Beattie has done in this catalog shot. Without the posters and skis to help explain the picture, it would have much less fashion meaning.
[Courtesy Modern Globe, Lollipop]

When you're featuring garments like this brassiere and girdle, which have designs in front, you may find it advisable to have the model turn her body toward the camera to show them more clearly. This kind of pose also places the body under slight stress and demonstrates the control function of the garments.

Avedon lighted his picture from the front to bring out the delicate embroidered designs on the garments as well as the figure silhouette. The model's downcast eyes and partially obscured face have somewhat the same effect as turning the head away—they subdue her personality.
[Courtesy Vanity Fair]

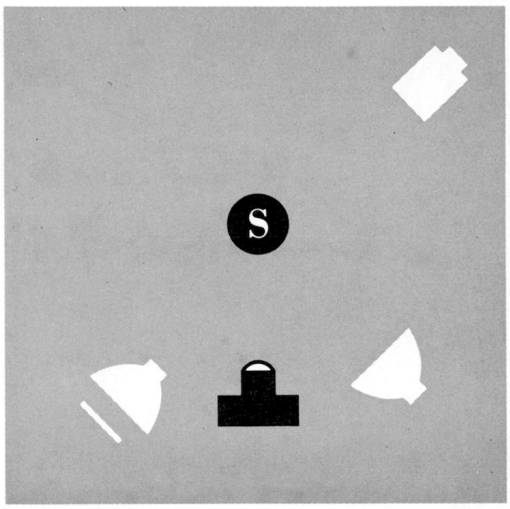
Shooting accessories

In the preceding pages we've shown you how accessories such as a pair of sunglasses, a rolled umbrella, a pair of gloves, or a scarf can enliven a fashion picture by helping to suggest the use of the garment, or a mood or setting. Often, however, an accessory may be the entire point of the picture. Let's see how accessories can be handled when they're cast in featured roles.

Many photographs of accessories are essentially still-life pictures with a fashion theme. In planning and shooting them you can apply the ideas, methods, and principles we demonstrated in the lesson on still-life photography. For example, you could create a story-telling still life that suggests the presence of the person who might own or use the accessory. You could show a person actually using or enjoying the object. Or you might concentrate on the product only and glamorize it through your choice of camera angle, composition, and lighting.

Just as in shooting clothing, first decide on the fashion points to emphasize. If you're photographing leather handbags, for example, you might light your picture to reveal the quality of the leather–softness for suede or calf, bright highlights for patent leather, surface texture for pigskin or alligator. If your subject is hose, you might shine light through the fabric to enhance its sheerness. The fashion interest in shoes comes from shape and design; therefore you'll probably want to show at least one of a pair in profile or semiprofile. Remember, too, that an accessory has a purpose as well as style. If possible, try to suggest or show this purpose in your arrangement.

On these and following pages we demonstrate basic ways to photograph a number of common accessories–with examples of what not to do as well as what's good. Then we'll show some more unusual ways to treat fashion accessories.



Handbags

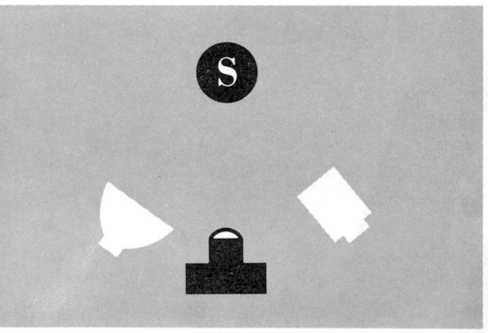
A small tabletop setup such as we demonstrated in the lesson on still-life photography is suitable for photographing most small accessories, including handbags. A simple way to show a dark handbag is against a horizonless sweep of white seamless paper. The diagram above shows a good lighting method: one flood at 45 degrees for the mainlight [this models the bag], one bounce fill [to soften the shadows], and a small spotlight [to accent the sheen and texture of the material].

Good: The angle of this bag is good–it shows us the side and the two straps, as well as the front. Try to imagine the things a woman would want to see if she were examining the bag in a shop–its shape, thickness, and texture, as well as such details as the clasp. Then show these attractively in your picture, as was done here.

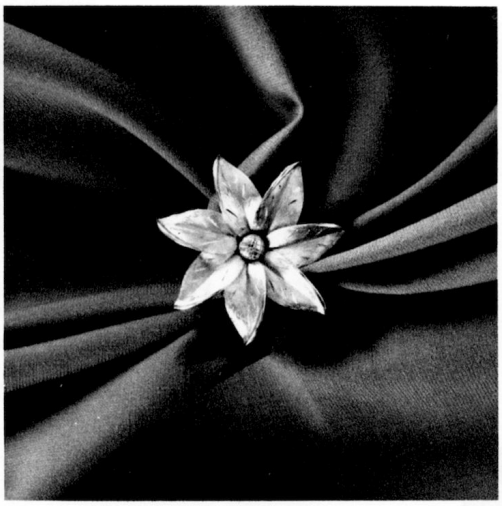
Poor: Here the angle is bad. We see the bag head on, and get no idea of how thick it is or what the sides look like. Also, the front strap hides the back one. There's a lighting error, too–instead of bounce fill, as before, the photographer used direct fill. It is too strong, causing a reflection from the white paper that makes the lower part and one side of the bag look smudged. If you get unpleasant reflections like this, bounce your light instead of using it "raw" and direct.

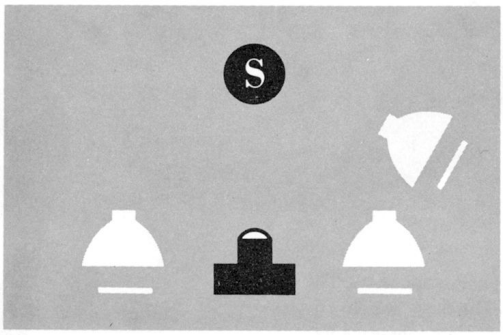
Pins, earrings, jewelry

When photographing a small accessory such as a pin, earrings, costume jewelry, etc., be sure to move in close enough to show the object in detail. Focus and light carefully. In general, use bouncelighting to get a soft sheen on metallic objects; use direct spotlighting to make jewels sparkle. Choice of background is important, too, as the illustrations show. Keep backgrounds and surroundings simple–a plain, soft-textured surface often is best. And don't overdo the lighting. Trick effects usually cause confusion.

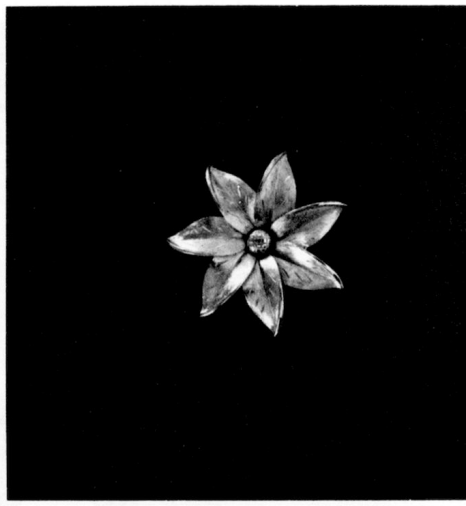


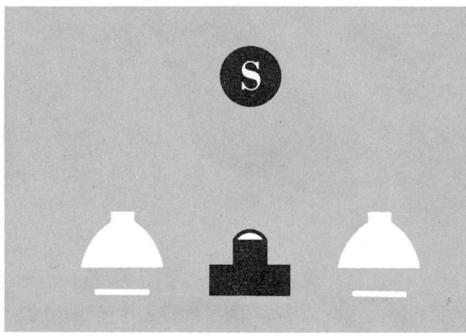
Poor: Pinning a piece of costume jewelry to a piece of fabric is a convenient way of displaying it–but choose the fabric carefully. Here a metallic, patterned material was used–an unfortunate choice. When strongly lighted with a spot in a 45-degree position and a flood fill near the camera [see the diagram], the fabric sparkles with bright highlights which compete with the gold pin. The pin is almost lost amid the busy background.



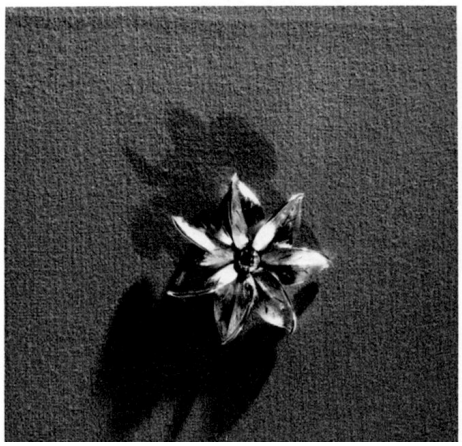


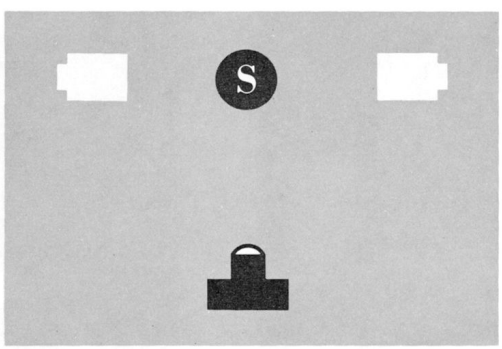
Good: A much better choice of background is this plain, fine-textured fabric, pinned into attractive folds that lead the eye to the pin. Darker than the pin, the fabric makes the accessory stand out strongly. For soft lighting, the photographer used a bounce flood in a 45-degree position as a mainlight, and two bounce floods at left and right of the camera for very even fill-in illumination.





Good: An even simpler effect was achieved by pinning the fabric smooth and flat against a board and attaching the pin. If you don't plan to show folds, be sure the background fabric is perfectly smooth; just a few wrinkles can be displeasing and messy. A lovely soft light was obtained with two bounce floods near camera position. Observe highlights carefully in metallic objects and jewelry. Don't let reflections and sparkle obscure the form of the object.





Poor: This is what can happen if you go overboard with spotlights in an attempt to create sparkle. You get confusing double shadows [here one shadow is from a main spot high at left and another is from a second spot high at right]. Notice, too, how the glare and shadows break up the form of the pin so its shape and details of design are hard to see. Add accent lighting with restraint.

Shoes

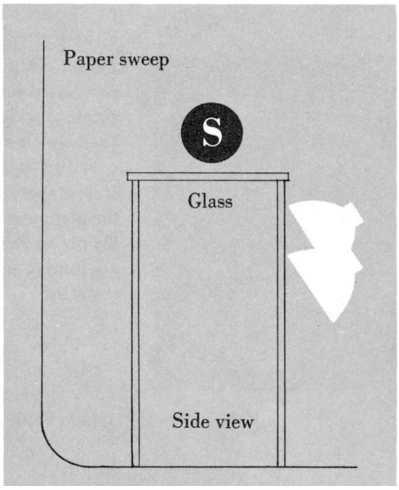
When you photograph women's shoes, sometimes you may be required to show both the left and right shoe; at other times just a single one will do. As with handbags, light and position the shoes carefully to bring out the style lines and interesting details of construction. Your photograph must be a substitute for the real thing and should give a woman the information she would look for if she were examining the shoes in a store.

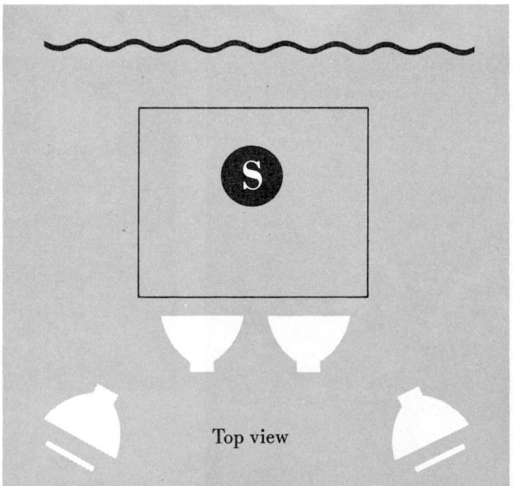
Good: Here's a simple but effective way to photograph shoes. The background is a white seamless paper sweep. The shoes, which seem floating in space, are resting on a sheet of glass supported by two chairs. By placing objects on glass you can easily eliminate distracting cast shadows. [Be sure the glass is absolutely clean.]

See the two diagrams below for the lighting used in this setup. Two floods were bounced off the white paper underneath the glass to give a high-key background, as shown in the side-view diagram. Two more bounce floods were used at 45 degrees right and left to model the shoes softly and reveal details of style and construction. Notice the attractive sheen that this lighting gives the leather, and how well it shows up the inside lining.

Poor: A similar lighting setup was used here, but the placement of the shoes is not good. The nearest one looks disproportionately large because it is too close to the camera. Remember, when you shoot at a close distance, perspective may be distorted. Place both shoes at approximately the same distance from the camera to avoid the effect you see here.

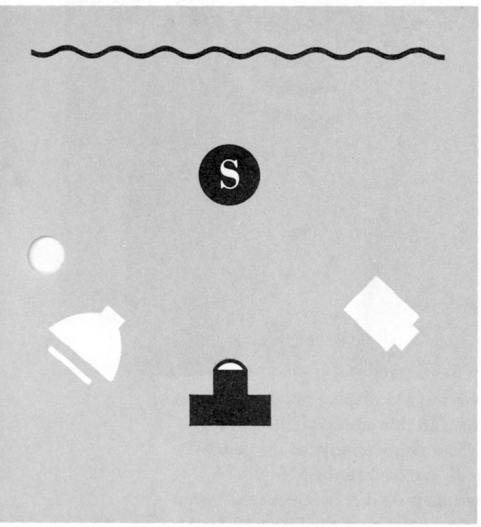
Poor: Watch the angle of the shoes, too. Emphasize the graceful outlines. Having shoes point almost directly at the camera, as they do here, usually makes them look foreshortened and stumpy. Notice, too, that the heels are hidden from this angle. The heel is an important part of a shoe's styling, and women want to see it.

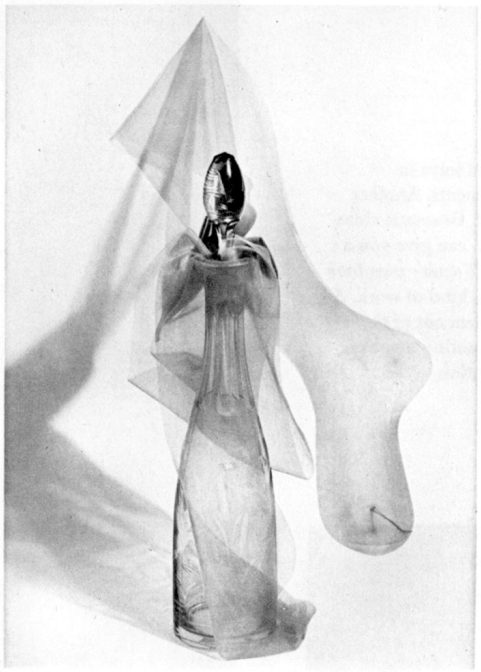




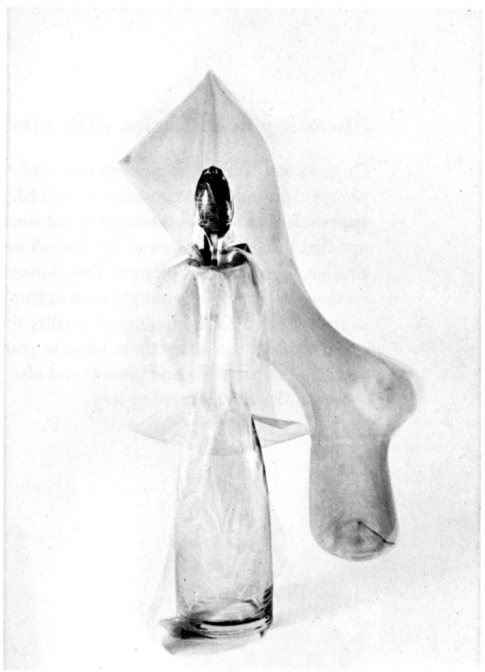
Hose

Women's hosiery is difficult to photograph because of its delicate sheerness and long narrow shape. The easiest way to show it is on a shapely leg. However, if you must show it without the leg, here is a good basic approach–as well as what to avoid.





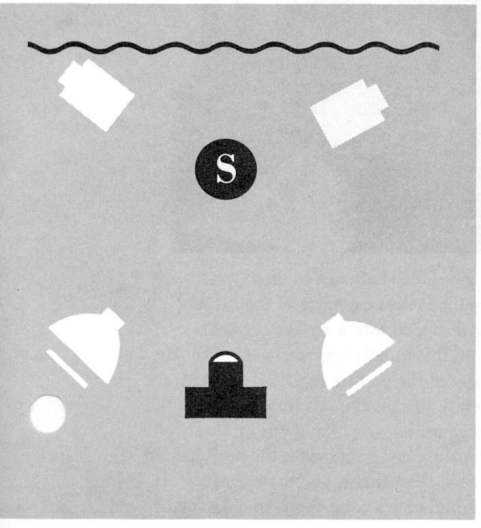
Good: In this still life, one of the stockings is arranged on a tall perfume bottle; the other is attached to the sweep of white paper in the background. To get some movement and interest into the picture, it's often a good idea to combine hosiery with some appropriate prop, as the photographer did here. A spotlight at 45 degrees right was used as the main source of light, with bounce fill to soften the shadows. Enough light is reflected from the background to show the sheerness of the material.

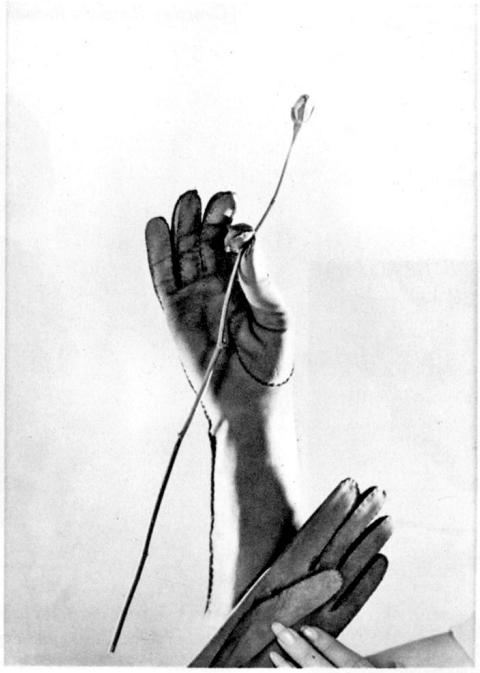


Poor: Accent lights that are too strong can spoil your picture. Here the photographer placed a spotlight in a 90-degree sidelighting position at left and another in a backlighting position at right. The strong highlights on the bottle and the overly bright background blot out the hose.

Gloves

Gloves usually need to be worn to photograph well. You can show them on a person's hands, or you can use model hands like those employed in department-store windows or counter displays. The texture of the material and details of stitching are fashion points to watch for and emphasize. A simple prop, like the rose in these two shots, can help make your picture more interesting.





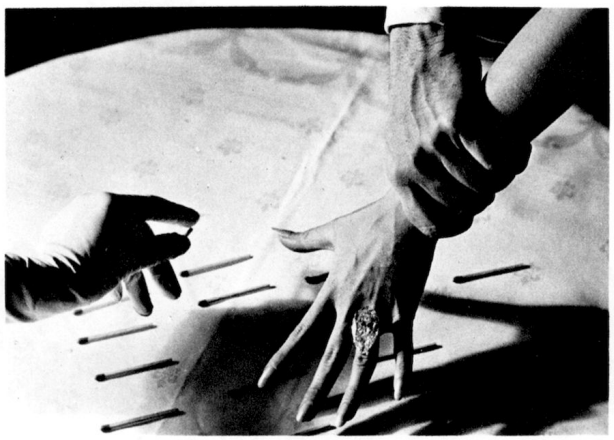
Good: For this picture, two accent spotlights were pointed at the gloved hand from behind. This brought out the texture of the leather and rimmed the edges with light. Two bounce floods near the camera filled in the shadows, so that we can clearly see the details of stitching and design.

Poor: The lighting is too harsh and contrasty here–it comes from a spotlight at 45 degrees left and one bounce fill close to the camera. The shadows under the cupped fingers are too dark, and the rose stem and leaves cast distracting shadows on the glove. Watch shadows closely–make them work for you, not against you.

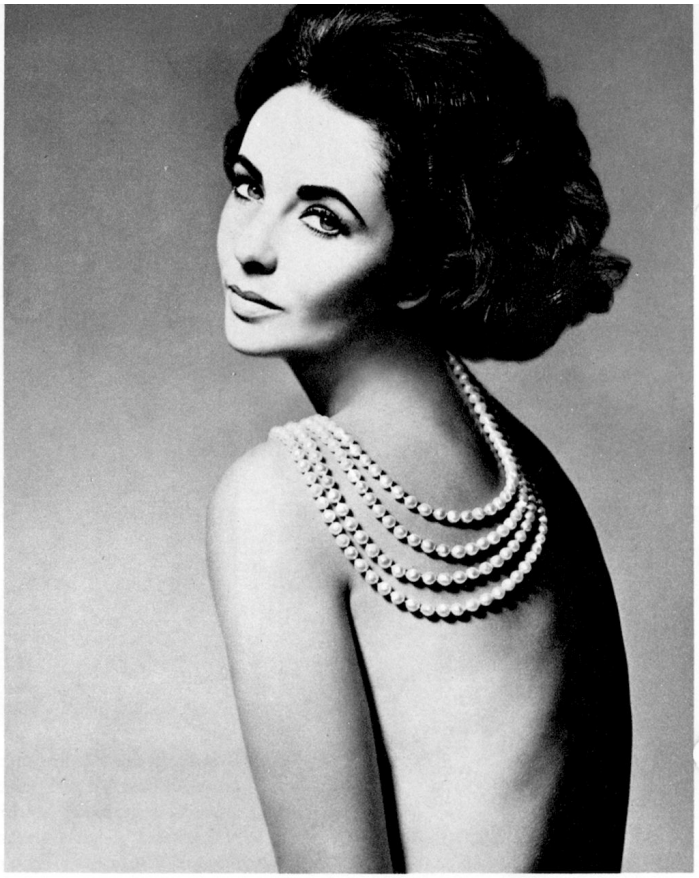
Shooting accessories with models

On the preceding pages we demonstrated some basic ways to photograph fashion accessories as still-life arrangements. Another approach is to show accessories being worn or used. Dramatic close-ups that include a portion of the human figure often can give you a livelier, more unusual picture. The photographs by Faculty members on these two pages are imaginative examples of this kind of work. All of them have a refreshing, novel quality that lifts them out of the ordinary. You can adapt these ideas to your own shooting to make pictures that surprise and please—and also call attention to the merchandise in an arresting way.

Costume jewelry: To emphasize the translucent quality of costume jewelry, shine light through it, as Bert Stern did here. Backlighting also helps you clearly show up a complex shape such as this ornate necklace. The illumination is electronic flash, bounced off a white background as demonstrated in the previous lesson. The flat lighting and softness of detail on the girl's face keep it from becoming so important that we aren't strongly aware of the necklace. Her expression and the unusual touch of having her hold one end of the necklace in her teeth make this an eye-catching picture.
[Courtesy *Vogue*, ©1960, Condé Nast Publications, Inc.]



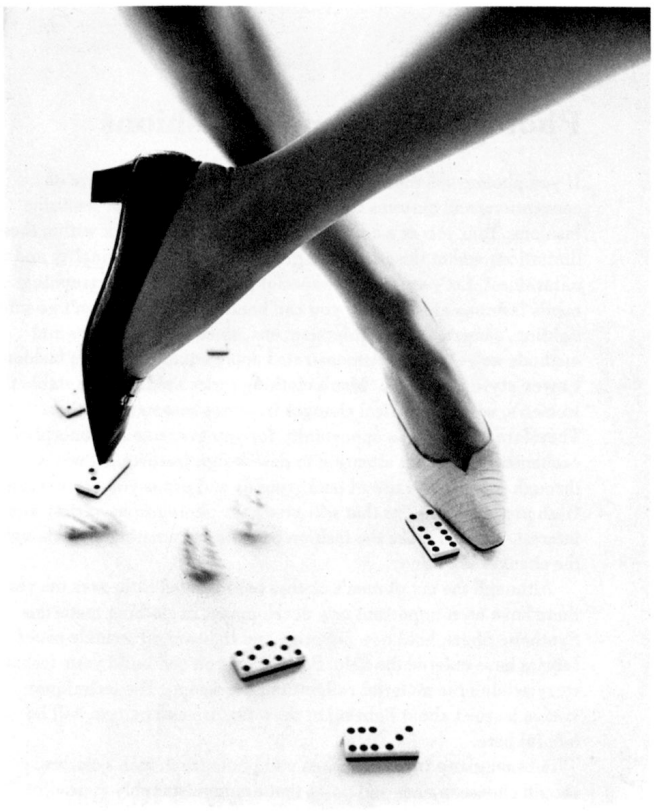
Costume jewelry: A match game supplied a story theme for this editorial picture taken by Stern for a fashion magazine. Something has just happened outside the picture—exactly what we don't know. While we're intrigued by the suggestion of drama and tension, our attention is called to the jeweled ring in the foreground. Note how the low sidelighting heightens the feeling of action and mystery.
[Courtesy *Vogue*, ©1962, Condé Nast Publications, Inc.]



Pearls: One of the most effective ways to display jewelry is to show it being used by a beautiful woman. In this editorial illustration Richard Avedon played off the white, shiny quality of the pearls against the flesh tones of his model, actress Elizabeth Taylor. A beauty-light flood at high left cast shadows that bring out the luster and roundness of the pearls and the contours of the face and figure. The result is a picture that combines simplicity with an aura of voluptuousness.
[Courtesy *Harper's Bazaar*]

Furs: Fur accessories present a double challenge to the photographer. You must capture the lustrous quality of the fur and also show how it has been cut and shaped into a stylish garment. Irving Penn accomplished both in this quietly impressive picture. He placed the wrap in the central part of the picture area and focused sharply to reveal the surface texture in rich detail. [Note how even the individual hairs along the edge of the wrap stand out in silhouette.] The model's over-the-shoulder gaze makes the pose just different enough to arrest attention. Remember, you may need to expose more generously than normal to get good detail in dark fur.
[Courtesy *Vogue*, ©1951, Condé Nast Publications, Inc.]

Pearls: Here's another interesting treatment of a pearl necklace, photographed by Avedon for a high-fashion publication. The grapes repeat the shape of the pearls and also suggest their sensuous quality. This time Avedon used bouncelight from two floods for a soft, overall illumination that picks up highlights in the fruit and jewelry, and delicately brings out the flesh tones of the model's face and arms. The print was made light to help carry out the soft, feminine mood. [Courtesy *Harper's Bazaar*]



Shoes: Often it's not necessary to show both shoes of a pair. You might just show one–or combine two styles in one picture, as Stern did in this illustration for a fashion magazine. To give the picture an unusual touch, he placed dominoes on the studio floor and had the model scatter them with her foot. The picture has motion [notice the blurred dominoes] and therefore is more striking than a static shot of the shoes would be. However, the photographer was careful not to introduce too much blur, which might have obscured the shoes. [Courtesy *Vogue*, ©1963, Condé Nast Publications, Inc.]

Hair style: Hairdos aren't accessories, but photographing them does present many of the same problems since you must move in close and bring out details. When Avedon shot this editorial illustration, the "feather cut" was an innovation. To express it in visual terms he posed his model behind a spray of feathers that repeated the shapes of the waves in the girl's hair. In printing, he bleached out her skin tones with a solution of ferricyanide. [We explain this process in a later lesson.] As as result the hairdo and fan are strongly emphasized. [Courtesy *Harper's Bazaar*]

Hats: The eye-stopping quality of this picture comes from the model's expression and the use of dramatic lighting. The girl's intent gaze instantly catches our eye, which then travels to her hat–the subject of the picture. Avedon lighted the picture from the front with a flood to illuminate the hat and face evenly. Then he placed a spot behind the model to rimlight the hat and make it stand out. When photographing millinery, be sure to find an angle that shows the hat's shape clearly and attractively, and don't let it blend in with the background.
[Courtesy *Harper's Bazaar*]

Photographing men's fashions

If you photograph men's clothing you'll soon become aware of conventions and customs that don't exist in the world of feminine fashions. Your job as a creative photographer is to work within these limitations and at the same time give your pictures originality and naturalness. Let's see what the special problems of photographing men's fashions are and how you can handle them. [We won't go into lighting, camera angle, equipment, etc., since the techniques and methods we've already demonstrated apply equally to men's fashions.]

Fewer style changes: Men's clothing styles are far more stable than women's, with few radical changes from one season to another. Therefore, there is less opportunity for you to create an atmosphere of excitement by calling attention to new design features. However, through imaginative use of backgrounds and props you can develop fresh picture situations that will give your photographs variety and interest. You can make the fashion points *seem* exciting even though the changes are minor.

Although the cut of men's clothes has changed little over the years, there have been important new development in clothing materials. Synthetic fibers, bold new patterns, and lightweight wrinkle-proof fabrics have entered the field. Sometimes you can build your fashion story around the material rather than the design. The techniques you've learned about lighting to show texture and pattern will be helpful here.

The masculine image: When you photograph men's clothes, you should choose models and poses that are unmistakably masculine. The elegant, dandified type of model has largely given way in popularity to the rugged male with broad shoulders. If you can't find the type you want among professional models, don't hesitate to use nonprofessionals who look the part. This particularly applies when you're featuring sportswear. Sportswear often is best shown in action–on models who know and enjoy the sport portrayed.

Make sure that your model's poses and gestures are typically masculine. Generally, they should be more restrained and dignified than a woman's. The light, fanciful treatment that enhances women's clothes would only seem effeminate when applied to male fashions.

The importance of basic lines: To properly display the hang of a man's jacket or the cut of his trousers, show the figure in a relaxed attitude that brings out the basic lines of the garment–its flow from top to bottom. Extreme action, particularly above the waist, may cause wrinkles and folds that break up the lines and destroy the neat, trim, well-pressed look that is strongly favored by most manufacturers of men's clothing. [See the photograph and caption below for important points to watch when posing a male fashion model.]

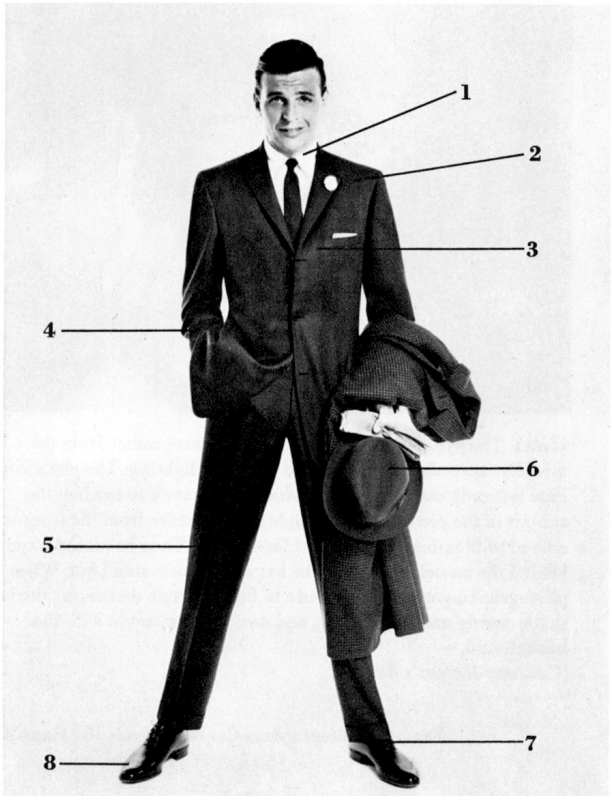
Although the model should look neat, he shouldn't be standing stiffly at attention. Let him do something–light a cigarette, hold a telephone, point toward the camera, wave to someone in the distance. Keep the action moderate, but lifelike and natural. Then decide whether front, side, or three-quarter view best displays the garment and choose your camera angle accordingly.

A final tip on clothing: Remember that you can pad and pin a man's garment just as you can a woman's, to make it fit better or to get rid of ugly folds and wrinkles.

Creating a story situation

Often you may find it helpful to think of your male fashion picture as a problem in editorial illustration rather than just a fashion shot. Imagine that your model is a character in a story or play, acting out some typically masculine part. He might be catching a train or plane, dictating a letter, driving a sports car, escorting his wife or girl friend to the theater, playing golf or tennis, watching a ball game on television. Relate his activity to the *type* of clothing you're featuring and plan your props and background to build the right atmosphere and mood.

In the following illustrations, your Faculty members show a variety of ideas they have worked out for displaying men's clothes. As you study them, try to think up more situations you might use to emphasize these or other fashions. As we mentioned earlier, you're somewhat limited in the poses, gestures, and expressions you can show in men's fashion pictures. But there's no limit to the inventiveness you can bring to bear on the story situation.



Points to watch when you photograph men's clothing

1 Be sure the collar fits well. It should be neither too loose nor too tight.
2 The jacket should fit snugly at the shoulders, without ugly bunching or wrinkles.
3 Be careful of bunching and wrinkles in the area of chest and waist, too. Often it's good to have at least one side of the jacket fall in a straight line from shoulder to hip. Pin the jacket from behind, if necessary, to insure a smooth fit in this area.
4 A bent elbow or hand thrust in a pocket looks natural and casual–and emphasizes the soft folds of the fabric.
5 Choose a pose or angle that shows the cut of the trouser–in this case it's a slim taper from waist to cuff. Trousers for dress wear should have a sharp crease.
6 Choose accessories that are appropriate for the garment you're showing. In this case, hat, overcoat, and gloves are natural companions for a business suit.
7 Trouser length is as critical in men's clothing as skirt length is in women's. If the cuff is too high or low, adjust it to break properly.
8 Shoes should be neat and well shined.
[Photograph by Richard Avedon, courtesy Hart Schaffner and Marx]

Shooting a variety of fashions in one picture

Sometimes you may have to show a variety of clothing styles in *a single picture*. That was the problem Richard Avedon faced in preparing this editorial shot of sports clothing for a men's magazine. His solution was to choose a group situation for his story theme. Then he planned the action in detail and rehearsed his cast.

Avedon told his models to imagine they were on their way to a picnic and gave each one some part to play as they moved along. He prefocused on a designated spot and exposed quickly when they reached it. Getting your models to act out a part helps them to forget the camera and respond naturally. But don't wear them out during rehearsal. When they show signs of fatigue or tightening up, call a break. Avedon kept his studio record player turned up throughout the shooting to help get his subjects into the spirit of the picture.

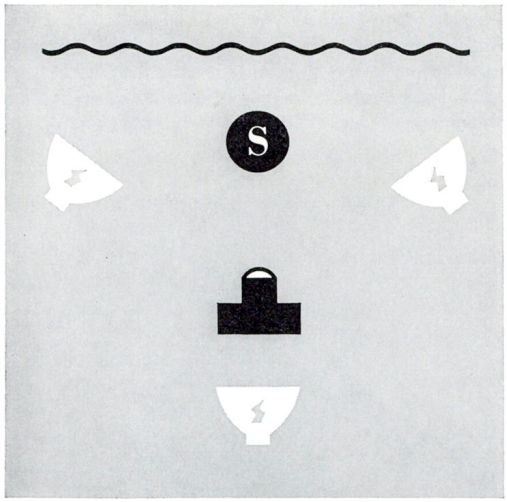
He made twenty-four exposures with an 8x10 camera and electronic flash before achieving the one he thought carried out his purpose–to show the men's sports attire in a gay, animated picture situation. Notice that he's used girls here as "accessories" for the men–they are used as a foil, much as men may be in pictures of women's fashions. [Courtesy *Playboy*]

Simplicity plus action for a fashion catalog

With imaginative use of props, poses, and expressions you can carry out a story idea against the plain walls of a studio, as Avedon has done here. These pictures are part of a series he shot for the catalog of a textile manufacturer who wanted to display the variety of knitted sportswear made from his materials. Each picture is held together by a sports theme–baseball, tennis, and yachting–that gives the series a convincing outdoor flavor. Yet, as in most catalog photography, the treatment had to be simple and direct.

The photographer moved in close, so the viewer would be able to see the texture of the fabrics, the main fashion interest. He put action into the scenes by capturing animated expressions and movements. The models' figures, however, remained stationary to show the clean lines of the garments to best advantage.

Avedon froze the action with electronic flash. By bouncing the light off the background and using one flash directly in front of the models he created a relatively flat overall illumination that recorded the details of the clothes.
[Courtesy DuPont]



Creating a 'look' in men's fashions

When you photograph men's suits, jackets, and outer coats–the basic items of dress and business wear–your first concern must be to show the structure, shape, and form of the garments. But over and above that, you should try to create a *look*–a style of wearing the clothes that will be admired and imitated by the men you're trying to reach through your photograph.

Your approach should be dictated by the design, quality, and purpose of the clothes. Ask yourself: What is the logical market for this suit or jacket? College men? Executives? Fashion leaders? Traveling men? Then choose models, props, and backgrounds to create an atmosphere that will appeal to these potential buyers.

If you're featuring a lightweight wash-and-wear suit, for example, you might place a vigorous-looking, young-to-middle-aged model, suitcase in hand, against an airport background. Your theme, then, would be travel comfort for the man on the move. If the clothes have an expensive, luxurious quality, the "man of distinction" type of model posed in a drawing room or a private club might be more effective. Plan your picture so that the viewer will identify an *image he admires* with the *clothes you're presenting.*

Usually you won't have to go to the trouble and expense of constructing a set for your pictures. The entrance to a public building, an office lobby, a restaurant interior, a college campus, or a well-appointed home may provide just the setting you need. Look around you for suitable shooting locations and make arrangements to use them for your fashion pictures.

Another approach is to build your image entirely with lighting, poses, and well-selected props, as Richard Avedon has done in most of these examples. His purpose was to project a fashion image which his client called the "worldly look." Let's see how he went about it.

Everything about this meticulously groomed man suggests worldliness and sophistication, the impression the photographer wanted to convey. Note the accessories–a bowler hat and umbrella–and the rich, dark tones that pervade the picture. Overhead lighting creates a nighttime atmosphere and at the same time spills over sufficiently to bring out major fashion points of the suit, particularly the fit at neck and shoulders [critical areas in men's tailoring], the jacket line, and the texture of the material. By placing one hand in his trouser pocket, the man has revealed his vest and the roll of his lapel–other important details.
[Courtesy Hart Schaffner and Marx]

With a seated figure, be especially careful to avoid annoying folds, wrinkles, and bunching of the fabric. In this shot, notice the smooth, graceful way the open jacket falls and the natural but slight folds close to the knee of the upper leg–details that were carefully arranged by the photographer. The contemporary office chair, the narrow-brimmed straw hat, and the furled umbrella all help express the "worldly" theme. To reveal the fine texture of the cloth, Avedon lighted it with strongly directional illumination.
[Courtesy Hart Schaffner and Marx]

Sometimes a profile view best shows the features you want to emphasize. That was the case in this picture featuring a houndstooth-checked outercoat. Looking at the coat from the side, we can see its collar, cloth-covered buttons, slash pocket, and jaunty cut. For the "worldly look," Avedon had his model wear a bowler and gloves, and carry an extra-slim umbrella. He caught the action by having the model walk up to a marked "target spot" on which the camera was prefocused.
[Courtesy Hart Schaffner and Marx]

In a series of editorial fashion pictures for a young men's magazine, Avedon worked for a lively, amusing effect. Here we have the busy executive rushing to catch a plane for an important business meeting, while giving last-minute instructions to his staff. The photographer has created a scene of action and realism, with a note of satirical humor to lighten the mood. Of course, if you use humor in fashion pictures, be sure you don't overdo it or your fashion points may get lost.

You can achieve a business atmosphere in more conventional ways by showing typical office details–desks, typewriters, telephones, etc. But this technique has been used so often that it's commonplace. A more inventive approach, such as Avedon has used here, will give your picture freshness and interest.
[Courtesy *Playboy*, ©1961, HMH Publishing Co., Inc.]

When you plan a photograph of a new men's garment, consider the manufacturer's brand name or advertising slogan–it might provide the inspiration for your setting and action. In this illustration Richard Beattie's assignment was to dramatize a new line of sports shirts called Martinique prints. "Style and comfort for the man of action" was the message his client wanted to get across. Beattie actually shot the picture on location on the island of Martinique in the West Indies, where a native festival supplied color and action against an authentic background. A photograph like this creates a mood of pleasure and excitement which the viewer subconsciously associates with the product.

The photographer has posed the model with his back to the camera to show the comfortable fit of the shirt–a main fashion point. The man's extended arm emphasizes the design of the short sleeves, another fashion highlight. The girl is made subordinate, since she's of secondary importance. Note how the blurring of her hands and the headdress of the native dancer at the right strengthens the feeling of action.

Unless you're working on a large budget, you probably won't be able to pick a distant or exotic locale for your picture idea, as Beattie did here. However, you may be able to find good locations in your own area, and borrow or rent suitable props from museums, costume outfitters, or decorating shops.
[Courtesy The Arrow Co.]

Children's fashions

This field offers wonderful opportunities for imaginative photography. Children's clothes make up an increasingly important part of the fashion market–and the charm of the children themselves can give your pictures extra appeal.

Your basic approach to photographing children's fashions need be no different than your approach to any other fashion assignment. First, you must know the fashion point or points to emphasize in the garments you show. Then you must plan your background, lighting, pose, and other details to bring out these points clearly.

Your working methods, of course, may be different from those you would use with adult models. In general, *keep things simple.* Avoid overly elaborate lighting setups that may hamper spontaneity and speed of shooting. The personality of a child, an appealing expression, a cute pose or gesture–these may play as vital a part as the merchandise itself in making a good children's fashion picture.

Use appropriate games, conversation, toys, and props to put children in the right mood, and keep them happy and interested. For example, Bert Stern finds that playing a simple participation game like "Simon Says" sometimes offers a good way to evoke charming, spontaneous expressions. An assistant can be invaluable when you work with children, and you should be ready to shoot fast, so as to make the most of moments when everything is going well. [We suggest you review the advice on posing children given in the lesson on photographing children, weddings, and pets. The same principles can be very helpful in fashion shooting, too.]

Look for activities and props that can give your model something to do and also suggest the use of the garment. For instance, if you're photographing a young child in a playsuit, you might provide him with a toy pail and shovel and let him dig in a sandbox. With back-to-school fashions, appropriate activities include carrying books, riding a bicycle, waiting for a school bus, or talking on the school steps.

Watch children of different age groups at play. Notice the things they do naturally in the playground, at the park, or coming home from school. The incidents, poses, and activities you observe may spark good ideas for pictures.

Choosing the right model is critical, of course. *Be sure to select a child who looks the correct age for the garment displayed.* In photographs, some children look younger or older than their actual age. Therefore, it's a good idea to make some test shots first if this is practical. With teen-age girls you have quite a bit of control over apparent age. Often the same girl can be made to look considerably older or younger by a change in makeup and hairdo.

Following are some tips on posing child models of different ages. The pictures, by Bert Stern and other photographers, show some good methods of combining the charm of children with information about their clothing.

Tips on posing

Infants: Depending on the age of the baby and the garment shown, use a lying-on-back, raised-head, or seated pose. [These were demonstrated by Harry Garfield in the lesson on photographing children.] A long lens and/or cropping can help you focus attention on the fashion details of the baby's clothes.

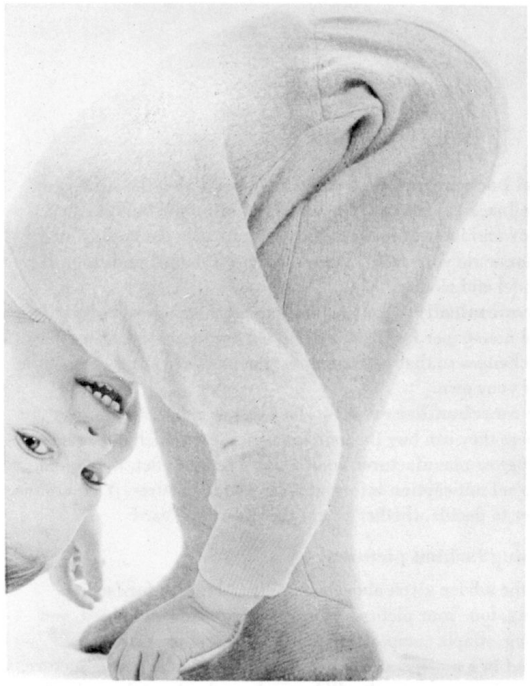
Toddlers [from age two or three to about six]: This is a very active age for both boys and girls. Your best bet usually is to give them a toy or prop, or to play a game with them. Give their energy a good outlet and you can capture some wonderful poses and expressions.

Seven to eleven: Children in this age group usually take directions much better than younger children. Girls sometimes pass through an awkward stage during these fast-growing years. Take particular care to get graceful poses of legs, arms, and feet. Quiet, formal poses will sometimes serve your purpose. [See the Stern pictures on the opposite page for some lovely examples.] Boys usually are rather rough-and-tumble during this period. Depending on the merchandise, you can show them in almost any kind of action. But be sure the pose doesn't conceal important features of the garment.

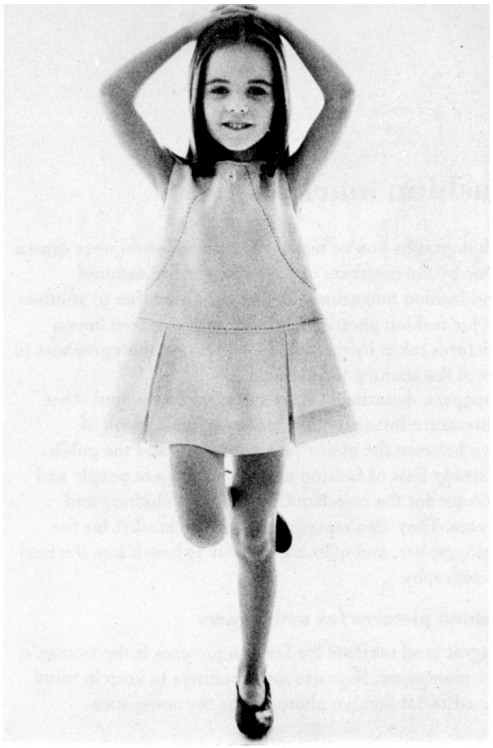
Subteens and teens: Older girls may be shown in an active or more sedate pose, depending on what they're wearing. But, again, be sure the pose is feminine and graceful. Vigorous, "manly" poses often are best for boys, although dignified, formal poses may be appropriate for older teen-agers. Boys at these ages are usually very appearance-conscious. Keep up-to-date on how shirts are worn, what's smart in ties, belts, and other accessories. These touches can lend authenticity to your pictures.

The garment often can suggest a good story-telling situation. To show children's rainwear for an editorial illustration, Gosta Peterson posed his three models with an umbrella, as if they were waiting for a bus. The varied, amusing poses give charm to the picture.
[Courtesy *New York Times Report on Children's Wear*]

More sedate poses sometimes are better for older children. The seated and leaning poses of these two teen-age girls add movement to the composition, but the angle clearly reveals the trim lines and styling of the poplin sportswear, as the fabric manufacturer wanted.
[Courtesy Du Pont]



Cute action poses are good with younger children. To show the freedom of movement allowed by these pajamas, the photographer played games with the child and caught him bending. The picture [shot for an ad] was tightly cropped to focus attention on the garment.
[Courtesy Kapart, Inc.]



In general avoid shooting down on children from an adult's eye level–this may create unpleasant foreshortening, conceal fashion details, and give a feeling of remoteness. You'll usually get better perspective and a more intimate feeling by shooting from the child's own eye level or even lower, as Stern did here. The head-on view shows the silhouette of the girl's dress and the pleats of the skirt. The lighting is from bounced electronic flash in umbrella reflectors.
[Courtesy *Vogue*, ©1963, Condé Nast Publications, Inc.]

Here are two shots from Bert Stern's first children's fashion assignment–a classic example of how an unusual solution to a familiar problem can pay off handsomely. Assigned by *McCall's* art director to shoot "the greatest child's fashion section ever," he created a series of pictures that drew a phenomenal response from the magazine's readers and established a much-imitated style in fashion photography.

Stern's idea was to treat his young subjects seriously, posing and lighting them as if they were adults. "People are always looking for the child within the woman," he says. "For these pictures I decided I would look for the woman within the child."

The dresses were reminiscent of little-girl fashions of the past century. Therefore Stern decided to use a dark background [black seamless paper] and strongly directional lighting [with no fill] to suggest the work of an old-time portrait photographer. He planned to use romantic, old-fashioned hair styles and studied, serene poses that would also evoke the mood of a bygone era and make the little girls seem more serious and mature.

The two pictures reproduced here are typical of the series. The girl in the print dress was caught unawares during a moment of rest. The artificial flowers pick up and repeat the floral pattern of the dress–a key feature of this garment that Stern wanted to underscore. The second girl was photographed sitting sideways and looking steadily into the camera, making a formal triangular composition. The lighting brings out the folds of the material and the pose emphasizes the major fashion points.
[Courtesy *McCall's*]

Local fashion markets

Most of the photographs you've seen so far in this lesson were drawn from work done by the members of your Faculty for *national* advertisers and fashion magazines. To call your attention to another major market for fashion photography, we've reproduced here a selection of pictures taken by press and advertising photographers in different parts of the country for *local* use.

Local newspapers, department store sales brochures, and other promotional literature form an important link in the chain of communication between the major fashion centers and the public. They bring a steady flow of fashion news to millions of people and provide a showcase for the merchandise on sale at clothing and department stores. They also represent a valuable market for the free-lance photographer, and offer a good way to break into the field of fashion photography.

Editorial fashion pictures for newspapers

One of the biggest local markets for fashion pictures is the woman's page of a daily newspaper. Here are some pointers to keep in mind when shooting editorial fashion photographs for newspaper publication.

Make pictures clear and sharp: Use relatively strong, even lighting and focus carefully so that your center of interest shows up clearly and sharply. Pictures that rely on soft-focus effects or subtle gradations of tone are apt to become muddy and lose them when reproduced on coarse newsprint. [Review the discussion of print quality for reproduction in the press photography lesson.]

Take vertical shots: Vertical pictures fit the newspaper format better than horizontals. The picture editor can quickly scale them for two-, three-, or four-column use.

Use local backgrounds: A shooting location that the reader can recognize [such as an airport, hotel lobby, or public building] adds immediacy and interest to the subject. But be sure the background doesn't dominate your fashion news. Keep it subdued and secondary to the model and clothes.

Work economically: You may have to work on a low budget when you shoot newspaper fashions. Select your locations and plan your costume changes so that you can make the most of your models' time as well as your own.

Provide merchandise credits: Newspaper readers often want to know where they can buy the merchandise shown. Include the name of the designer or manufacturer and the local retail outlet, if available, when you submit caption information for your pictures. It's up to the newspaper to decide whether or not credits will be used.

Advertising fashion pictures

Much of the advice given above generally holds true for fashion advertising, too. Your pictures must be sharp and well lighted, and have strong, simple composition to achieve good impact when reproduced in a newspaper. Before you shoot an advertising picture, be sure you know whether it will be used as a horizontal, vertical, or square. You must plan the picture to fit the format of the ad. Also, the smaller the ad is to run, the more important it is that you keep things very clear and simple.

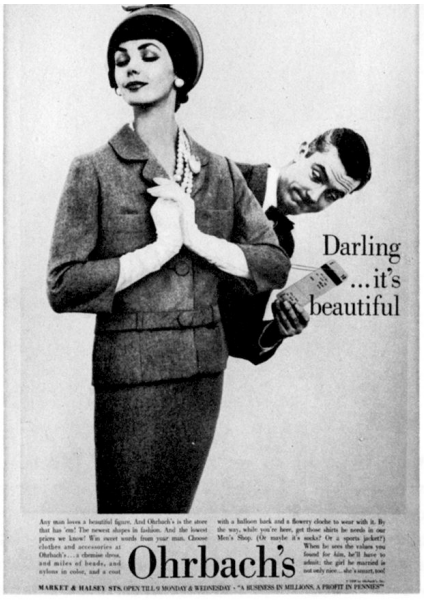
The following illustrations suggest the variety of fashion photography that appears in the editorial columns of local newspapers and in advertisements and sales literature. They are typical of the kind of assignments you might get if you explore the fashion photography markets in your community.

A familiar background, such as the platform of the local railroad station, can give greater interest to an editorial fashion picture. By using shallow depth of field, the photographer kept the background soft but recognizable while showing this casual fur-trimmed coat in sharp, clear detail.
[Courtesy Wide World Photos, Inc.]

A hotel canopy provided both an appropriate setting and shaded lighting for this woman's-page illustration of a three-piece suit for town wear. Look for shooting locations like this that will give you soft, low-contrast illumination. Then, even if you have to photograph on a bright, sunny day, you can avoid harsh shadows on the model and clothing. Note how the smartly styled hat completes the model's outfit here.
[Courtesy Wide World Photos, Inc.]

The pronounced pattern of this tweed coat–a main fashion point–could be lost against a busy background. The photographer wisely chose the contrast of a plain white wall. To keep his picture from becoming static, he caught the model as she leaned slightly off center, making a pleasing diagonal composition.
[Courtesy Wide World Photos, Inc.]

Newspapers must appeal to readers with widely varying interests, tastes, and income, so don't overlook the significance of even low-cost, mass-produced accessories such as the calf-height socks and leather slippers featured here. Note how the photographer has moved in close and focused selectively on his subject, throwing the background out of focus. As an alternate technique, he might have placed a section of gray cardboard behind the model's legs for a perfectly plain background.
[Courtesy Wide World Photos, Inc.]


Darling
...it's
beautiful
Ohrbach's
MARKET & HALSEY STS. OPEN TILL 9 MONDAY & WEDNESDAY - "A BUSINESS IN MILLIONS, A PROFIT IN PENNIES"

Some retail advertisers, like the department store which sponsored this ad, put a strong human-interest quality into their selling messages. The models become actors, playing a part that carries out the advertiser's story. Here, for example, the store is appealing to cost-conscious readers in a lighthearted way, as the man examines the price tag and finds it to his liking. The fashion points of the girl's costume are shown clearly, but the emphasis is on the comedy theme suggested by the models' expressions and poses. Sometimes humor is an effective element in a fashion picture–but let the client decide.
[Courtesy Doyle, Dane, Bernbach, Inc.]

"Going formal is fun" was the headline for this men's-wear ad, which appeared in a metropolitan newspaper during the winter holiday season. The photographer carried out the party theme by adding the balloons and the girl in the evening gown. Strong sidelighting emphasized the collar and shoulder of the man's dinner jacket and at the same time reduced the girl's importance by placing her in shadow. But notice that the photographer used a backlight, too, so that the figures are sharply defined. Be sure to keep the models from merging with the background in your fashion pictures.
[Courtesy J. L. Hudson's Men's Store, Detroit, Mich.]

Department store advertising often calls for a still-life treatment of accessories, as here. The photographer used strong sidelighting to produce highlights on the shimmering patent-leather surface of the handbag, and employed a rose and a pair of white gloves as props to emphasize the bag's elegance.
[Courtesy J. L. Hudson Co., Detroit, Mich.]

Parents often look for information on wearing qualities as well as fashion points in photographs of children's clothes. In this illustration for a newspaper ad, the photographer stressed both. He showed the girl's shoe in profile for fashion interest, and emphasized the rugged construction of the boy's shoes by suggesting the kind of treatment they normally get.
[Courtesy Dayton's, Minneapolis, Minn.]

Strongly contrasting values hold up well in newspaper reproduction. For this department store lingerie ad the photographer used dramatic sidelighting and a dark background to create a romantic atmosphere for the product. The model's poised, graceful stance softens the feeling of the picture, which might otherwise have seemed too somber. An electric fan, placed at camera distance from the subject, will open the folds of filmy material and show the full sweep of the garment, as it does here.
[Courtesy The Hecht Co., Washington, D. C.]

Telling the fashion story

As a fashion photographer, you'll often find yourself in the combined role of reporter and salesman. When you photograph new styles–whether for advertising or editorial use–you are engaged in a special kind of photojournalism. You must know what features of the garment are newsworthy, and emphasize these important points in your picture. But at the same time you may also need to evoke a mood, tell a story, or surround the product with an air of fantasy or glamour–to stir the viewer's imagination so that she will think, "That's how *I'll* look and feel if I wear that dress."

Most good fashion pictures combine both approaches. They are *realistic* in the sense that the picture is an accurate report on a style. And they are also *romantic* in the sense that the merchandise is idealized and made to look exciting and appealing. For some purposes –newspaper editorial shots, for example–you might stress the first approach. For other jobs–such as advertising or editorial assignments for a high-fashion magazine–you might emphasize the second.

There is no one answer to how you should treat a fashion subject–each case is individual. However, there are some guidelines to help you. Your decision should be based on three factors that enter every fashion assignment: the *clothes*, the *client*, and the *audience*.

The clothes: Is there something radically new and different about the design or materials of the clothes you're showing? If so, you can concentrate on this novel feature–a flaring skirt, a slimmer silhouette, puffed-out sleeves, or whatever it may be. You can bring out this strong fashion news by employing the techniques of posing, lighting, and arrangement of props and background that we've demonstrated in this lesson.

However [as is often the case], when the fashion change is minor or the garment is undistinguished, you'll have to call on your imagination and ingenuity to make the picture interesting. You might play up the beauty of the model, choose an unusual lighting arrangement, add novel props, or find a particularly eye-catching location. You might create a story or situation that will make the clothes seem important and attractive because of the treatment you've given them.

The client: Behind every fashion assignment is a client with definite ideas about the kind of picture he wants. If he's the editor of a fashion magazine, he may be more interested in a general style trend or "new look" than in details of the garment itself. Therefore, you may be permitted more freedom to interpret and comment on the fashion news. An advertiser, on the other hand, often wants a fairly literal presentation of the clothes. He is interested in getting buyers to respond to his message–to want the garment shown.

However, there are many exceptions to these general statements. The trend today is toward a greater application of editorial techniques in advertising–the use of interpretive, imaginative, story-telling pictures. The important thing is for you to determine your client's *purpose* before you plan your picture. Then it's up to you to carry out the purpose in your own way, as effectively as you can.

The audience: Who will see your picture–the style-conscious readers of a high-fashion magazine or the millions of people with different incomes and tastes who read a mass magazine or newspaper? The makeup of the audience should be considered when you plan the overall idea of your picture and choose model, pose, props, and background. Studying different types of publications that carry fashion pictures will help familiarize you with the needs and tastes of different audiences.

The fashion market is broad and endlessly varied. It includes the woman who is shopping for the latest and most exclusive evening gown and the mother who is outfitting her children for school; the man who wants to cultivate an executive look and the sports enthusiast who collects sweaters and slacks. It includes scores of other kinds of people. However, even in mass media or catalogs aimed at this broad market, there is more demand for good taste and imagination than ever before. Something more than a stock fashion pose is demanded in publications that once were satisfied with very routine work. The more offbeat, unusual, or story-telling treatments once found only in sophisticated publications are now adapted [in moderate form] to the needs of mail-order catalogs, newspaper features, and ads for local department stores.

For all these reasons you can find real opportunity for creative satisfaction in fashion photography whether you work on the local level and for mass media or shoot for the more specialized fashion publications. If your interests lie in fashion photography as a part- or full-time career, the methods taught in this lesson can help you achieve your goal no matter what markets you are aiming for.

Technical notes on the photographs

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Richard Avedon; Rolleiflex with an 80-mm *f*/2.8 lens; Tri-X film; 1/60 second at *f*/8; 1 1500-watt diffused floodlight.

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Richard Avedon; Rolleiflex with a 75-mm *f*/3.5 lens; Super-XX film; 1/5 second at *f*/3.5; available light.

Page 6
Richard Avedon; Rolleiflex with a 75-mm *f*/3.5 lens; Super-XX film; 1/250 second at *f*/8; daylight.

Page 6
Richard Avedon; Rolleiflex with a 75-mm *f*/3.5 lens; Super-XX film; 1/10 second at *f*/8; daylight in studio.

Page 7
Richard Avedon; 8x10 view camera with a 12-inch lens; Super Panchro-Press, Type B film; 1/25 second at *f*/6.3; daylight.

Page 7
Richard Avedon; 8x10 view camera with a 12-inch lens; Super Panchro-Press, Type B film; 1/10 second at *f*/6.3; daylight in studio.

Page 7
Richard Avedon; Rolleiflex with a 75-mm *f*/3.5 lens; Tri-X film; 1/250 second at *f*/16; 1 1500-watt diffused floodlight.

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Richard Avedon; Rolleiflex with a 75-mm *f*/3.5 lens; Plus-X film; 1/250 second at *f*/8; daylight.

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Richard Avedon; 8x10 Deardorff with a 12-inch lens; Tri-X film; 1/25 second at *f*/11; available light supplemented by floodlights.

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Richard Avedon; 8x10 Deardorff with a 12-inch *f*/4.5 lens; Tri-X film; 1/50 second at *f*/8; daylight.

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Richard Avedon; 8x10 view camera with a 12-inch lens; Super Panchro-Press, Type B film; 1/60 second at *f*/6.3; daylight in studio.

Page 9
Bert Stern; Hasselblad 500C with a 150-mm lens; Tri-X film; exposure for electronic flash halfway between *f*/8 and *f*/11; bounced electronic flash.

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Richard Avedon; Rolleiflex with a 75-mm *f*/3.5 lens; Tri-X film; 1/60 second at *f*/8; 1 1000-watt diffused floodlight.

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Richard Avedon; 8x10 view camera with a 12-inch lens; Super Panchro-Press, Type B film; exposure for electronic flash at *f*/22; electronic flash: 2 on background, 1 bounced on foreground.

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Irving Penn; Rolleiflex with a 75-mm *f*/3.5 lens; Ektachrome Daylight Type film; 1 second at *f*/8; daylight in studio.

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Richard Avedon; 8x10 Deardorff with a 12-inch *f*/4.5 lens; Tri-X film; 1/10 second at *f*/16; available light and spotlights.

Page 11
Richard Avedon; 8x10 view camera with a 12-inch lens; Super Panchro-Press, Type B film; 1/25 second at *f*/6.3; 1 floodlight, 2 spotlights.

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Irving Penn; Rolleiflex with a 75-mm *f*/3.5 lens; Super-XX film; 1 second at *f*/22; available light.

Page 13
Irving Penn; Rolleiflex with a 75-mm *f*/3.5 lens; Super-XX film; 1 second at *f*/16; daylight.

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Richard Avedon; Rolleiflex with an 80-mm *f*/2.8 lens; Plus-X Pan film; 1/60 second at *f*/5.6; 1 1500-watt diffused floodlight.

Page 13
Irving Penn; Hasselblad 500C with a 150-mm lens; Plus-X film; 1/15 second at *f*/14; floodlights.

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Richard Avedon; Rolleiflex with an 80-mm *f*/2.8 lens; Tri-X film; 1/60 second at *f*/8; 1 1500-watt diffused floodlight.

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Richard Avedon; Rolleiflex with an 80-mm *f*/2.8 lens; Plus-X film; 1/250 second at *f*/8; daylight.

Page 22
Richard Avedon; Rolleiflex with a 75-mm *f*/3.5 lens; Plus-X film; 1/250 second at *f*/8; daylight.

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Richard Avedon; Rolleiflex with a 75-mm *f*/3.5 lens; Plus-X film; 1/250 second at *f*/8; daylight.

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Bert Stern; Rolleiflex with an 80-mm *f*/2.8 lens; Tri-X film; exposure for electronic flash halfway between *f*/16 and *f*/22; electronic flash.

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Richard Avedon; Rolleiflex with a 75-mm *f*/3.5 lens; Plus-X film; exposure for electronic flash at *f*/22; bounced electronic flash.

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Richard Beattie; 8x10 view camera with a 12-inch *f*/4.8 soft-focus lens; Ektachrome film; exposure for electronic flash at *f*/11; electronic flash.

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Bert Stern; Nikon F with a 105-mm *f*/2.5 lens; Isopan Record film; exposure for electronic flash at *f*/11; bounced electronic flash.

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Bert Stern; Nikon F with a 105-mm *f*/2.5 lens; Isopan Record film; 1/30 second at *f*/8; floodlights.

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Bert Stern; Rolleiflex with an 80-mm *f*/2.8 lens; Isopan Record film; 1/30 second at *f*/4; floodlights.

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Richard Avedon; Rolleiflex with an 80-mm *f*/2.8 lens; Tri-X film; 1/60 second at *f*/11; floodlight.

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Richard Avedon; Rolleiflex with a 75-mm *f*/3.5 lens; Tri-X film; 1/60 second at *f*/8; available light, 1 flood, 1 spot.

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Richard Avedon; 8x10 Deardorff with a 12-inch *f*/6.3 lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/22; bounced electronic flash.

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Richard Avedon; 8x10 view camera with a 12-inch lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/22; electronic flash, 1 direct on foreground, 2 bounced off background.

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Richard Avedon; 8x10 Deardorff with a 12-inch *f*/6.3 lens; Tri-X film; 1/10 second at *f*/16; spotlights.

Page 34
Richard Avedon; 8x10 Deardorff with a 12-inch *f*/6.3 lens; Tri-X film; 1/10 second at *f*/16; floodlights.

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Richard Avedon; 8x10 Deardorff with a 12-inch *f*/6.3 lens; Tri-X film; exposure for electronic flash at *f*/32; electronic flash.

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Richard Avedon; 8x10 Deardorff with a 12-inch *f*/6.3 lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/22; bounced electronic flash.

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Richard Beattie; 8x10 Deardorff with a 12-inch *f*/4.8 soft focus lens; Ektachrome Daylight Type film; 1/50 second at *f*/16; daylight.

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Bert Stern; Nikon F with a 105-mm *f*/2.5 lens; Isopan Record film; exposure for electronic flash at *f*/8; umbrella-bounced electronic flash.

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Bert Stern; Hasselblad with an 80-mm lens; Anscochrome Daylight Type film; 1/60 second at *f*/8; daylight in studio.

Page 37
Bert Stern; Hasselblad with an 80-mm lens; Anscochrome Daylight Type film; exposure for electronic flash at *f*/8; electronic flash.

Page 38
Photographer's name and technical data not available.

Page 38
Photographer's name not available; Graphic View with an 8½-inch lens; Royal Pan film; 1/100 second at *f*/8; available light.

Page 38
Photographer's name and technical data not available.

Page 39
Photographer's name not available; Mamiyaflex with a 180-mm lens; Tri-X film; 1/50 second at *f*/11; available light.

Page 39
Photographer's name and technical data not available.

Page 39
H. George Bickelmann; Hasselblad with an 80-mm lens; Plus-X film; 1/8 second at *f*/8; spotlights and fill.

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M. Brady; Hasselblad with an 80-mm lens; Panatomic-X film; 1 second at *f*/11; bounced flood.

Page 39
Photographer's name and technical data not available.

Page 39
Hal Reiff; Mamiyaflex with an 80-mm lens; Tri-X film; 1/60 second at *f*/8; bank of floodlights.

Famous Photographers Course
Famous Photographers School, Inc., Westport, Connecticut

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Lesson

19

Advertising photography

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In an advertising photograph all the picture elements must work together to communicate your client's message. In this picture, for example, Richard Beattie used all his knowledge and skill to convey the idea that owning a particular brand of car is enjoyable. The product is attractively shown in a refreshing, original way and in a situation that vividly evokes a feeling of romance and carefree pleasure.

Beattie selected this lovely pastoral setting only after scouting dozens of possible locations. He shot by the romantic backlight of the late afternoon sun, using a soft-focus lens to create a dreamlike atmosphere. The cool greens and blue-greens of the grass, foliage, and water contrast with the red convertible, making it stand out strongly. The picnic basket tells us the couple has spent a pleasant afternoon outdoors, and the composition uses tree branches and reflections in the water to emphasize the natural beauty of the setting. Every detail helps express the idea and mood the client wanted to communicate. [Courtesy Ford Division, Ford Motor Co.]

The power of photography in advertising

The realism and immediacy of photography make it an ideal medium for getting across an advertiser's message. The greatest aid to a sale is for the customer to *see* the product–and a photograph is the next best thing to looking at the object itself. More vividly and convincingly than any drawing or written description, a photograph can show the rich texture of a chocolate cake, reveal the sleek lines of a sports car, whet our appetite to visit a foreign country, or exhibit countless other products and services in a favorable way.

Because of its great power to communicate ideas and feelings, photography is used in enormous quantities by advertisers–in newspapers and magazines; on television; on billboards, posters, car cards, and counter displays; in brochures, pamphlets, and mailing pieces; and in catalogs and calendars. If you are interested in making photography your career, no other area offers such a rich and varied market for your work. Top professionals like Richard Beattie, Irving Penn, Richard Avedon, or Bert Stern may receive thousands of dollars for a single photograph used in a national advertising campaign. On a less spectacular level, too, there are good opportunities –manufacturers and merchants in almost every community need and are ready to pay well for photographs that will help them sell their merchandise.

In addition to the financial rewards of advertising photography, it offers you a chance to do work that is rich in creative satisfaction. Some of the most imaginative photography today is being done on assignment for advertising clients. The more daring ideas and innovations usually appear first in national ads for clients who want to try something new that will attract attention and get their product and campaign talked about. If the innovation is successful, many smaller advertisers follow suit. Thus, styles and trends in advertising photography are in an almost continual ferment–and new talent is continually in demand.

In advertising work, your imagination must be applied to serve a practical purpose–to deliver the client's message to the reader. Throughout this lesson we'll stress the ways that creative thinking can be directed to this end. Your guides will be Richard Beattie and other Faculty members who have done outstanding work in the field. We'll explain the special problems of choosing models, locations, props, and costumes for advertising work–details that can make or break the picture. We'll demonstrate how to use lighting, composition, color, and camera angles to make even a small, simple product look attractive and important. Many of the techniques will already be familiar to you–but you'll see them in new or special applications in this exciting field.

The purpose of advertising photographs

Every advertisement is designed to communicate a message–one that will make the reader want to buy the client's product or service. The *words* in the headline and text of the ad, what the *photograph* says or means to the viewer, and the way the words and the photograph are combined in a *layout* must all contribute to produce the desired effect.

In planning and executing an advertising photograph, always keep its practical goal uppermost in your mind. Remember, you are not just creating a good, clear, descriptive shot of the product or making a beautiful or attention-compelling picture. You also are producing one element that must dovetail with other elements–words and layout–*to get the advertising message across to a particular audience.*

For example, suppose the client wants you to make an advertising photograph of an inexpensive power mower. The ad will run in a garden magazine that goes mostly to people of average means. If the words emphasize the low cost of the mower, the picture should be in keeping with this theme. It would be inappropriate to show a very expensive-looking lawn, grounds, and house in the picture. Any models you use should be the kind of people with whom readers of the magazine can readily identify.

On the other hand, if you were shooting a photograph of a new high-fidelity console to appear in an ad in a sophisticated magazine, the requirements might be quite different. The client might want his product to look expensive, rare, and beautiful. You might place it in an elegant apartment, surround it with costly art objects, use well-dressed, fashionable-looking models, and light the console to bring out the rich texture of its wood and the sheen of its metal.

In some cases the basic idea for an advertising photograph may be worked out by the client and his advertising agency in advance. Then you may be supplied with a detailed layout, a sketch or drawing of the photograph, and finished copy of the headline and text. At the other extreme, you may be given a basic situation or idea and allowed considerable freedom in working out the details.

In planning those details, there are several vital questions you should ask yourself. Will my photograph express the client's basic idea quickly and convincingly? Will it reflect the character of the product or service that the advertiser wants to tell his audience about? Will it be appropriate for the particular audience that will see it? Failure to ask these questions or to find the right answers to them is the reason why many inexperienced photographers don't succeed.

All successful professionals realize that their advertising pictures *must* fulfill the basic requirements we have been emphasizing. Any confusing or inappropriate element in the picture should be eliminated, no matter how original or interesting it may be in itself, and no matter how much personal appeal it may have to the photographer. The picture must be carefully planned down to the smallest detail, with the message and audience in mind.

Within these practical restrictions, however, lies broad scope for imagination and individuality. For example, Irving Penn established a striking new style for product pictures with a series of photographs he made for a manufacturer of pie and pudding mixes. Penn used simple, direct close-ups to dignify the products themselves. Shown for what it was, without accessories or adornments, even a chocolate pudding or a slice of lemon pie took on new interest–thanks to Penn's mastery in seeing and organizing still lifes. The pictures were imaginative and strong–and they also sold the products. Another example is the work that Bert Stern did for a vodka distiller. The client wanted something unusual and amusing. Among other subjects, Stern shot a series using celebrities in incongruous settings and situations to spoof the "man of distinction" type of liquor advertisement. Although tailored to fit the specific needs of the client, the pictures were as offbeat and inventive as any editorial illustrations you're likely to find. You will see examples of these as well as many other ingenious shots in the course of this lesson.

Techniques and the advertising photographer

Once you clearly understand the advertising message you must get across, and have worked out a picture idea that will do it, you must follow through in every detail. Use all your know-how to give your idea its clearest and most effective expression. One reason why advertising photography is so absorbing and satisfying is that it calls into play just about all the knowledge you have of photographic methods and techniques. Skills you possess in any other branch of photography can be turned to good account here.

It should go without saying that you must produce your very best in terms of technical quality. An advertising picture is expensive to set up and shoot. It may involve the creative efforts of many skilled people before it finally appears in an ad. And much money may be spent in buying space for the ad. Perfection of quality should be your goal whenever you take on an advertising assignment.

In this lesson we'll demonstrate many fascinating and useful methods for creating advertising photographs. But remember that techniques and effects are only *tools to express your ideas.* Apply them to fulfill the practical needs of your client, not just for their own sake. If you can do that, you have the key to success in this lucrative, creative branch of photography.

Getting persuasion into your pictures

The purpose of any advertising photograph is to sell the client's product or service. But there is more than one way you can do this. You might show the product itself in a pleasing manner, emphasizing its desirable character. You can surround it with an aura of glamour and charm by showing it being used by attractive people in an attractive setting. Or you might illustrate how it is used, and the comfort or convenience it affords. Then, again, you might make a picture that symbolizes some outstanding quality of the product. [A baby, for example, could suggest the softness of a brand of facial tissue, or blue-green water could communicate the coolness of an aftershave lotion.] To help you create advertising pictures that have imagination and strength, let's examine these different ways that photographs can help persuade people to buy.

Most of us believe that our purchasing decisions are based on *reason*—that we make a practical choice after carefully comparing the features of different brands. Sometimes this is the case. Often, however, *emotions and feelings* play an important part, too—emotions and feelings that we may not even be aware of. Modern advertising men recognize the importance of appealing to emotion as well as reason—and frequently combine both appeals in the same ad.

Let's say, for example, that you have been assigned to shoot a photograph to be used in an ad for a new truck. The basic message—an appeal to reason—might be that this truck is more rugged and durable than its competitors. Facts and figures of road endurance tests proving this point might be given in the copy. The purpose of your photograph is to drive home this message in a persuasive visual way.

One approach might be to show the truck itself, perhaps hauling a load of logs along a rutted road. You might decide to use a wide-angle lens and a low shooting angle to make the vehicle look large and powerful. Backlighting could be employed for a more dramatic effect.

If the picture were being shot in color you probably would be wise to use a red truck. Surprising though it may seem, even the practical-minded men who purchase trucks tend to show a favorable emotional response to bright, exciting colors—particularly red—just as children

PARTY-PERFECT LEMON PIES IN HALF THE TIME!
1. New lip-smacking lemon flavor . . . in a package!
2. Guaranteed perfect texture every time!
3. Double-feature wonders—make the best puddings or pie fillings ever—for just a few pennies! Have some—soon!
JELL-O PUDDING and PIE FILLING
FIVE FLAVORS
Vanilla
Chocolate
Butterscotch
Lemon
Coconut Cream
TUNE IN on Bob Hope's "perfect" TV extravaganza on November 17th for "perfect" entertainment.

This photograph, one of a highly successful series that Irving Penn did for Jello, shows the product in use—often the most effective way to sell it. Note how the picture emphasizes the product's desirable characteristics expressed in the advertising headline, "Party-perfect lemon pies in half the time." The casual pile of forks and the stack of fourteen plates instantly suggest that there's a large group of people present and that this is the pie to make for big parties.

The strength of the picture lies in its directness and simplicity. See how the light pie stands out against the dark background, and the eye is guided smoothly toward the pie by the forks and plates and by the line of the serving utensil. An 8x10 view camera gave extreme sharpness and fine detail that show up the texture of the pie and its meringue topping.
[Courtesy General Foods Corp.]

Irving Penn made this advertising photograph to help sell diamond engagement rings. His aim was to create an atmosphere of glamour and romance that viewers would associate with De Beers diamonds.

Notice how casual and natural this picture looks—as if Penn had happened upon this couple and photographed them unobserved. Actually, every detail was planned with meticulous care. Weeks were spent finding a restaurant with antique paneling that would subtly suggest a European setting. The models had to be exactly right—attractive and sophisticated but believable. The girl's expensive wrap, thrown rather carelessly over her chair, indicates she is at home with costly things. The flowers and single candle on the table suggest romance, and the girl's expression is intent and adoring. The man looks more manly because his face is in shadow, the girl more feminine because hers is in light. The result is a photograph that strongly evokes what it feels like to be in love.
[Courtesy De Beers Consolidated Mines, Ltd.]

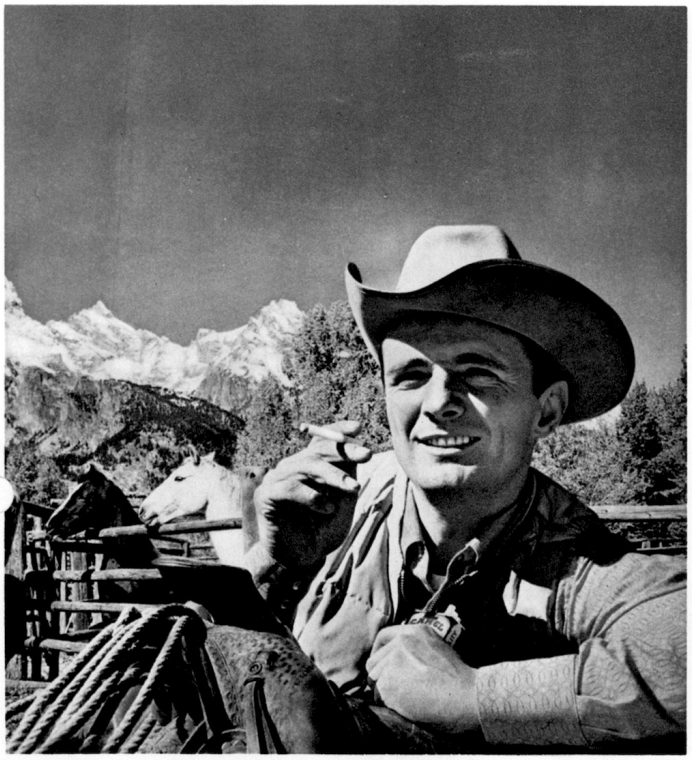
do. This is not to imply that a man is likely to buy *any* red truck just because of the color. But, given a choice of makes and models offering nearly equal advantages, his decision to buy one rather than another may be strongly influenced by emotion and personal taste. You should be aware of unconscious factors like this and put them to work for you in your advertising photographs.

Instead of emphasizing the truck itself, you and the advertising agency might decide to show a close-up of the driver. You might choose a rugged-looking outdoor type and show him at the wheel, his expression indicating that he's enjoying himself. This kind of picture would be appropriate with a headline such as "Our trucks make tough jobs easier."

Still another approach might be the symbolic one. Instead of the truck, you might show a dramatically lighted close-up of a flexed, powerful biceps. The muscular arm would stand for the qualities you want the viewer to associate with the vehicle–strength, endurance, and the ability to do a difficult job with ease.

In any advertising picture each detail–color scheme, composition, props, lighting, models [and their poses and expressions], costumes, location, background–should contribute to the total effect you want. Don't include anything that strikes a false or jarring note. For example, in an advertisement designed for masculine viewers, a lamp that is frilly and feminine might weaken the message. A background color that is dull and somber might detract from the gay mood of a picture showing people enjoying soft drinks at a party. [You'll find helpful ideas in the discussion of the emotional effects of color in the color lesson and of value and line in the composition lesson.]

The accompanying illustrations show various ways that you can use photography to make persuasive visual appeals in advertising. In some the product is shown directly, in others it is symbolized or surrounded with an aura of desirability. But, in each of these pictures, see how every detail has been carefully planned to help create a strong, unified effect that conveys the client's message. This is the goal you should aim at in your advertising pictures.



The purpose of this photograph was to play up the advertiser's brand of cigarettes as the kind that a "man's man" would buy, at a time when many other brands were emphasizing mildness or using romantic boy-meets-girl themes. Choice of model is vital, of course. Richard Beattie used a nonprofessional–actually a Wyoming rancher. He was photographed on location, leaning on a saddle. The lighting is strong and contrasty–appropriate for a rugged, masculine subject. It is 45-degree sunlight with a slight amount of flash fill to retain adequate shadow detail. Then Beattie took another shot showing all the elements in the background. The two photographs were combined by the art department to get everything in the best position for the ad. [It might have been possible to photograph *all* the elements in a single shot with a very wide-angle lens.]
[Courtesy Camel Cigarettes, R. J. Reynolds Tobacco Co.]

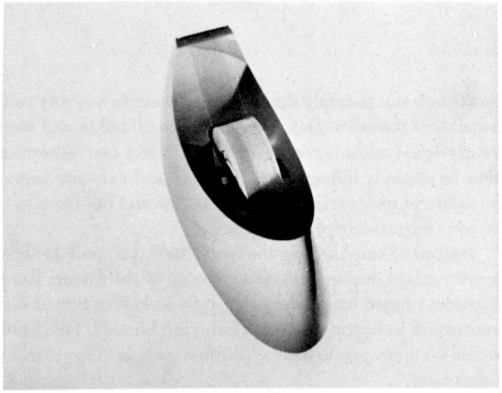
The item sold in this advertisement for an insurance company is security. The appeal of the photograph, by Richard Beattie, is primarily emotional–to the viewer's love of his children and his concern for their welfare. Every element helps to evoke the sweetness and innocence of childhood and, by implication, its need for protection. The models are charming little twins. A soft-focus lens, selectively focused on the profile of the girl at left, creates a soft, dreamy effect. The buttercups are a lovely, fragile symbol of childhood. The soft lighting establishes a delicate mood. The picture is planned to put the viewer in the right frame of mind for reading the client's message–a brief announcement of a family policy that automatically covers new arrivals, including twins.
[Courtesy The Prudential Insurance Company of America]

How to photograph a small product

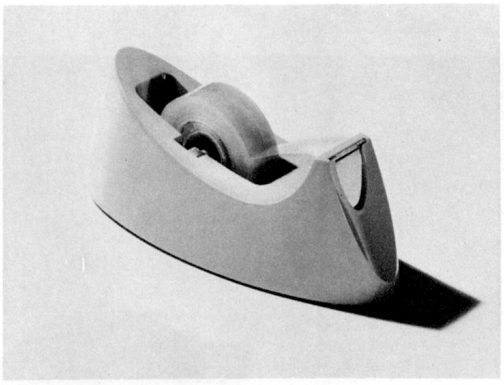
The simplest type of advertising photograph is a picture of a small product–a package, bottle, tool, utensil, compact machine, toy, houseware item, etc. This is the kind of assignment you might get from a local manufacturer who wants pictures of his product for a catalog, brochure, or advertisement in a trade publication. If you are trying to break into advertising work, small products are likely to be among your first subjects, so it's important to know how to handle them.

In a sense, a good product picture is a portrait of an object, revealing its form, texture, color, characteristic features, and unique details, and sometimes showing or implying how it is used. To help you carry out product assignments more effectively, Richard Beattie demonstrates a variety of ways to photograph a cellophane-tape dispenser–starkly simple, dramatic, with feminine appeal, with masculine appeal, etc.–and some errors to avoid. You can apply these methods to almost any small object you photograph.

Selecting a good angle

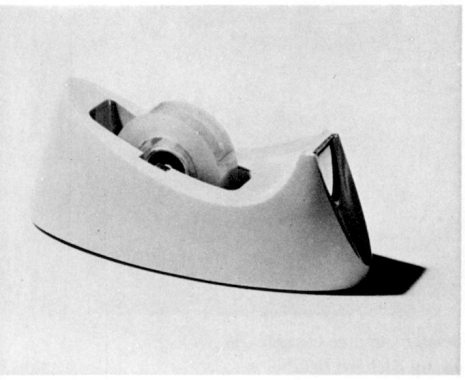


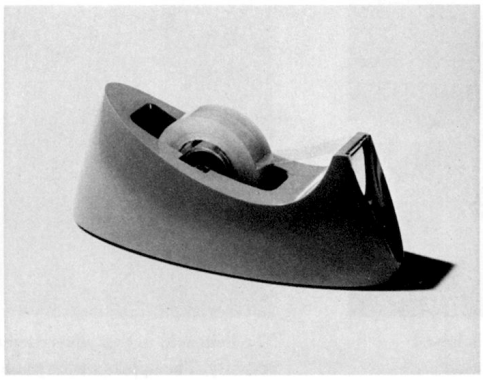
Poor angle: Here the tape dispenser is placed on a sheet of seamless white paper–a good material to use when you want a smooth, plain background for a product. A single flood provided the illumination. However, the view is wrong–you can't see the dispenser's characteristic shape or even clearly recognize what it is. When photographing a product, be sure you place it in a position and select a camera angle that show it to best advantage.



Good angle: This is much better. With the dispenser turned more to the side, we now can quickly recognize what it is. If the solid form of the object is important, don't photograph it head on, directly from the top, or in profile–it takes two sides to indicate dimension. The lighting here also is from a single flood. No fill was needed because enough light bounced back from the paper to fill in the shadows. This straightforward treatment would be suitable for a catalog.

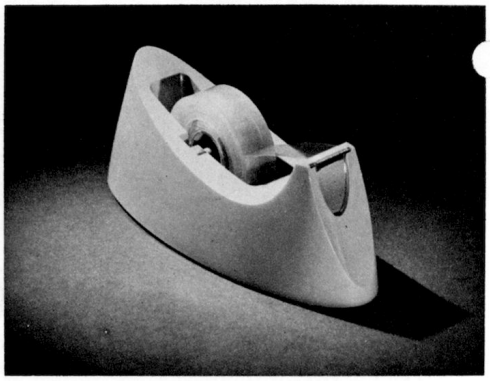
Using filters for value contrast



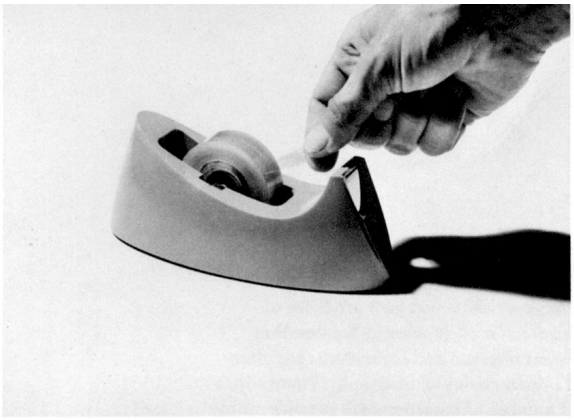


These two pictures illustrate how filters can reduce or increase the value contrast between an object and its background. The dispenser was a deep pink in color, reflecting a considerable amount of red light. By using a red filter, which transmits red light, the photographer *lightened* the product in relation to the white background [*left*]. A green filter, which absorbs red light, considerably *darkened* the values of the dispenser and made it stand out more strongly [*right*]. With this particular subject, you might choose to shoot with a green filter for a bolder effect than an unfiltered shot would give. The red filter is less desirable because it makes the object almost blend with the background. When you photograph a product, consider the possibility of using a filter–it sometimes offers the best way to separate the product clearly from the background.

Dramatizing with lighting



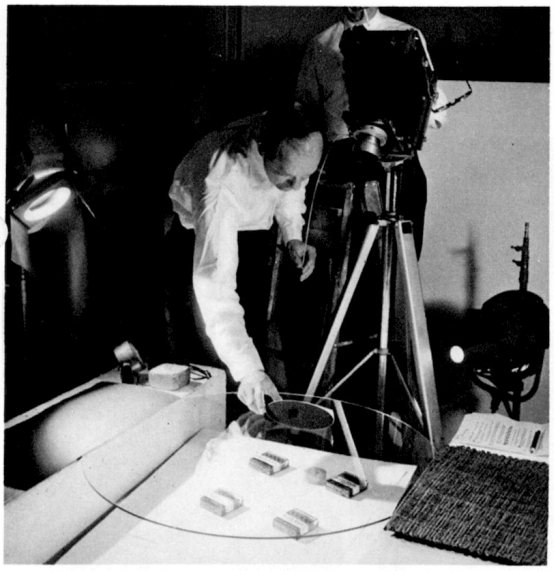
To make the picture more dramatic, Beattie changed the background to dark gray paper and used a single spotlight with a snoot. The intense, narrow beam of light emphasizes the contours of the dispenser, which now stands out sharply against the dark background. This strong, theatrical lighting–it suggests spotlighting on a stage–might be a good choice if the photograph were to be used in an advertisement announcing the dispenser as a new product.



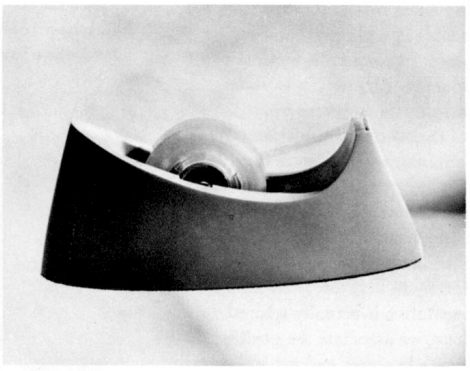
Showing how to use the product

Simply by introducing a hand peeling off a bit of tape, the photographer explains how the dispenser is operated and gives a touch of life and action to the picture. If the product's purpose is an important part of the message you are trying to get across, consider the possibility of adding a person or part of a person who is using the item.

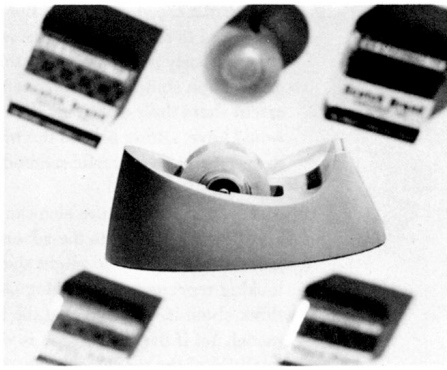
Special effects



Here is the setup Beattie used to produce the photographs at right. He shot down from a high angle with the dispenser on its side on a sheet of glass raised a few inches above table level. He used a broad-beamed studio spot with barndoors as a mainlight [*left*] and a spot with a snoot [*right*] to highlight the tape and top of the dispenser.

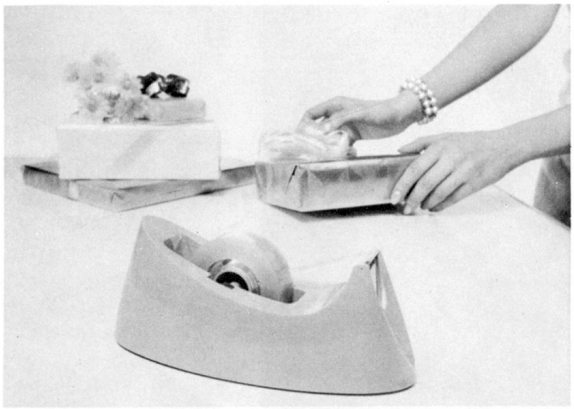


1 For this shot, a folded white cloth was placed under the glass. Beattie focused selectively on the tape dispenser, throwing the cloth far out of focus. The dispenser seems to float in midair against a nebulous background. It is lying on its side in this and the next shot, as shown in the setup picture.



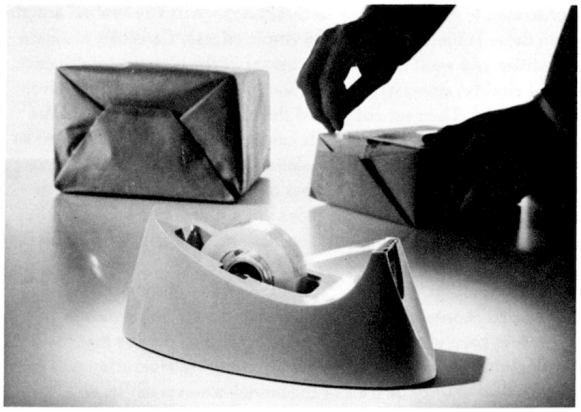
2 Here a sheet of white paper was substituted for the cloth, and packages and a roll of tape were placed on it. Actually below the dispenser [as in the picture at left], they appear to be behind it in the photograph. This method of placing your subject on a raised sheet of glass allows you to produce many interesting effects by your choice of "background."

Feminine appeal



Almost any object can be made to appeal primarily to women or to men, depending on the way you photograph it and the other objects you photograph it with. In this picture, Beattie has given the dispenser strong feminine appeal by showing a woman's hands wrapping a pretty gift package–a typical feminine use of cellophane tape. The lighting is soft and gentle, and the pearl bracelet, the ribbons, and the decorative flowers suggest femininity.

Masculine appeal



A stronger, masculine effect is achieved here by showing a man's hands wrapping larger packages with plain paper. The lighting is harsher and more contrasty. This treatment would be suitable for an advertisement appearing in a magazine with predominantly male readers.

Models for advertising photography

The ability to select good models and work with them effectively is important in advertising photography. Many ads have a person or persons in them, and many of the assignments you might get will require you to use one or more models. Therefore, you need to understand what models can achieve in advertising photographs, and how to select models who can do their job convincingly.

There are many good reasons for using people in advertising photographs. Obviously, human beings are interesting subjects and help attract the viewer's eye. But there's much more to it than that. We often tend to *identify* ourselves with people in a photograph–we unconsciously put ourselves in their place. For example, looking at a photograph showing a happy couple in a new car, we can to some extent share their emotions. We can imagine the pleasure we, too, would have, sitting behind the wheel of that car. Identification offers the advertiser a powerful method for stimulating our desire for his product.

A person in a picture also can help create a mood or attitude that gives greater impact to the advertising message. For example, an insurance company ad might show a strong, friendly, intelligent-looking representative helping out a family in distress. If we stop to think about it, we know that the representative is actually a hired model. Yet if the photograph is well done, we associate the positive qualities of the model with the advertiser's business and are influenced in its favor.

Models, as we have already seen, can "humanize" a product picture –enable you to show the product being used or enjoyed. A gown is much more appealing if you show a chic and lovely fashion model wearing it. A picture of a motherly-looking housewife type demonstrating how pleasant and easy it is to make a pie with a new instant mix has considerably more human interest than a shot of just the product itself.

In any of these examples, the right model can make the picture succeed–and the wrong one can cause it to fall flat. Since choosing a suitable model is so vital, you'll need to exercise your best taste and judgment at this step in planning the photograph.

The most basic consideration is that *the model must be appropriate to the purpose of the ad*. Selecting a model is like casting for a play–the person you choose must be able to look and act the required part. A handsome, dashing type of man who might be ideal for a sports car ad probably won't be convincing if you cast him as a reliable family physician. Nor would you be likely to use the chic fashion model to demonstrate the pie mix or the motherly housewife to show off a high-fashion dress [unless you wanted a comic effect]. Carefully evaluate the qualities you want the model to reveal in the picture–intelligence, youthful vitality, sincerity, manly good looks, glamour, or whatever else is required. Then set out to find the model who has them in the right proportions. Amateur models can serve your purpose as well as professionals, as we explain in the following pages.

There are a number of basic *types* of models frequently used in advertising photography. These types are not cast in iron molds, but they do have certain general characteristics that identify them. To help you recognize and select these types, study the accompanying pictures and descriptions.

When you choose a model for an assignment, don't consider just one. Look at several of the appropriate type, then choose the individual that seems best. Often the deciding consideration will be some personal quality or trait of the model–a warm smile, an animated sparkle in the eyes, a way of moving or standing that seems just right for your purpose. Two equally competent and experienced photographers might pick two rather dissimilar models for the same type of picture–and both be "right." There are no hard and fast rules. You develop your skill and judgment in these matters through experience.

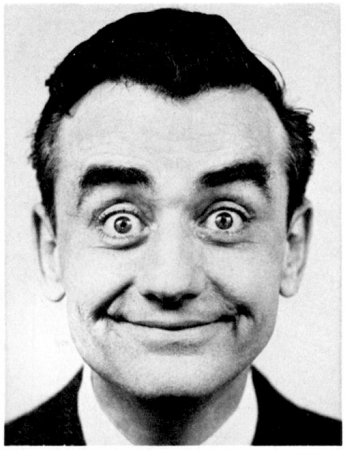
Types of models

The faces we show you here are those of professional models selected because they represent physical and character types often used in advertising photography. Naturally, a great number of variations are possible within each type–and some versatile models can be cast in a number of different roles. Study these faces and the comments under them–they will help you in choosing models for your pictures. Be sure the model's age, facial characteristics, build, hair color, and expressions are appropriate for the role you have in mind.

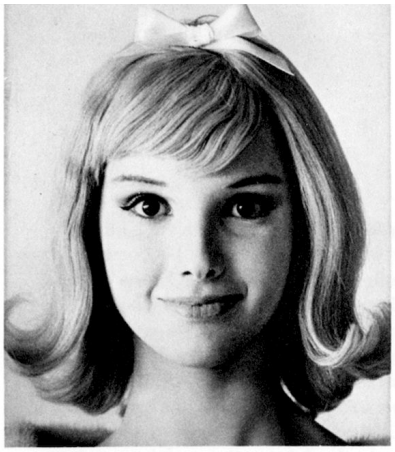
Young housewife: Usually a woman in her middle or late twenties, she is attractive, friendly, and not too sophisticated looking.
[Richard Beattie, photographer]

Middle-aged housewife: She must carry her age well, retaining a youthful complexion and expression. Some silver in the hair may be appropriate. The woman to look for is the ideal mother type –poised, mature, and understanding.

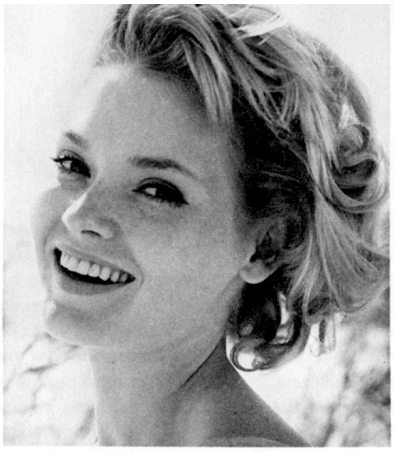
The man's man: This is the rugged outdoor type required in many ads for masculine products. He is tough, husky, weatherbeaten and good humored.
[Richard Beattie, photographer]



The comic: You need a model with amusing features and an ability to "mug." Expressions often need to be more exaggerated than in real life to communicate quickly.
[Charles Varon, photographer]

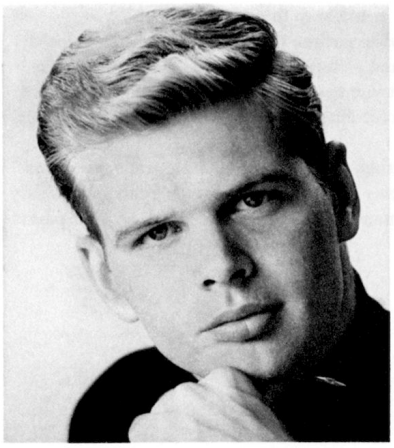


Teen-age girl: She should be cute, lively, and *look the right age.* Hair styling and make-up [or lack of it] can help make a teen-ager appear much younger or older than she actually is.
[Charles Varon, photographer]

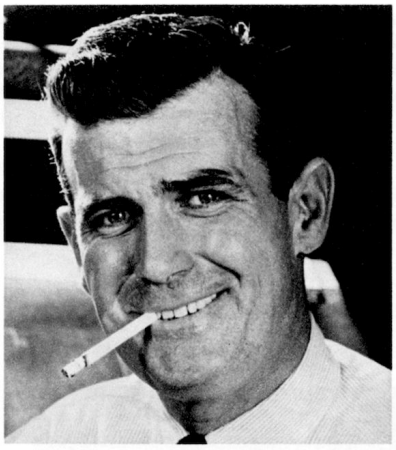


Outdoor girl: She is pretty in a fresh, well-scrubbed way, and radiates vitality and friendliness. She should have a good figure and some athletic ability if you're using her in action poses. Blondes often are preferred for this type.
[Charles Varon, photographer]

Glamour girl: This type is beautiful in a more exotic, sophisticated way than the outdoor girl. She is exciting, mysterious, seductive. Often a brunette is a good choice.
[Bert Stern, courtesy *Vogue*, ©1963, Condé Nast Publications, Inc.]



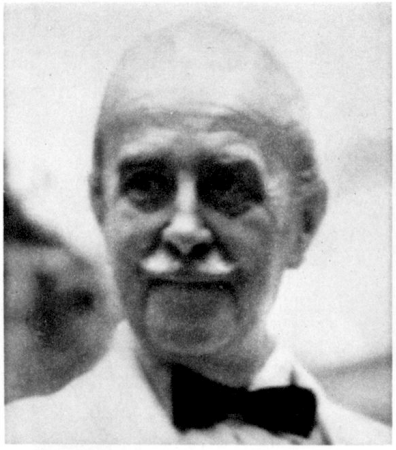
Youth: A wholesome, clean-cut look is desirable with this type. He may be handsome but should not be too "pretty." Depending on the needs of your picture you might look for faces that seem serious or fun-loving.
[Charles Varon, photographer]



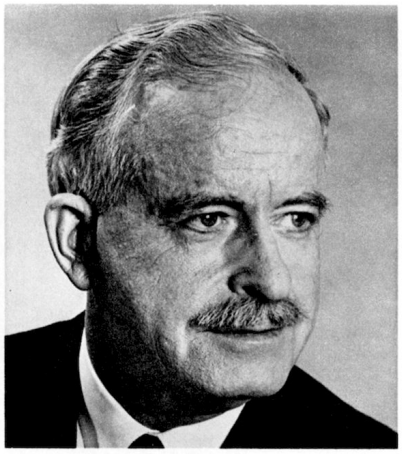
"Good guy": In his early thirties, he might be cast as a dashing bachelor or young husband. He's ruggedly handsome, in a fresh way. Often he's shown engaged in outdoor sports.
[Richard Beattie, photographer]

Sophisticated man: This type may have a face that is handsome in a less conventional way than the "good guy." He is mature, charming, experienced, and romantic–a type who would look equally at home in a dinner jacket or behind the wheel of a foreign sports car.
[Richard Beattie, photographer]

Small-town type: Middle-aged, jolly, and unpretentious, he might be a shopkeeper, postman, or next-door neighbor in any small American town.
[Richard Beattie, photographer]



The "man of distinction": Jaunty, well-groomed, and mature, this type lends a touch of class to the product he's shown with.
[Richard Beattie, photographer]



Doctor: Like the "man of distinction," this type is dignified and mature. [The most direct way to indicate maturity is to show gray hair.] His face expresses seriousness, intelligence, and authority.

Finding and using models

Most of the faces and figures you see in national advertisements belong to professional models. Top professionals are very highly paid for advertising work–an indication of the importance of their role. However, you can find good nonprofessional models, too. In fact, even if you can afford professional models and they are readily available to you, there may be good reasons for seeking nonprofessional talent.

"Some top models appear so often they lose their effectiveness," Beattie explains. "People see the familiar faces in ads for a variety of products. The models begin to seem too much like professional shills."

For this reason, Beattie and other top professionals are constantly looking for good new faces. You should acquire this habit, too. As you go to or from work, eat in restaurants, or travel on planes, trains, or buses, study the faces around you. Look for people who fit the types we've demonstrated here; look for unusual faces, beautiful faces, faces that might serve special purposes in an advertising photo. Imagine you are casting for a certain kind of ad. How many people can you find that would be suitable for it?

For more details on finding and hiring models, see *How You Can Turn Your Photography into Dollars*. There you'll find a discussion about model releases and some sample model release forms. *Study this section carefully. It is essential that you get a signed model release whenever you use a model–professional or nonprofessional–in an advertising photograph.*

How to get the best results with models

A photographer's relationship with his model is a highly personal and individual one. Every photographer who works frequently with models develops his own methods for getting good results. And different models may respond best to different approaches. We cannot give you rules to guide you in handling every type of model in every type of shooting situation–models and situations are too complex and unpredictable. But here are some general points to keep in mind.

Remember that your model is a person: Simple courtesy and friendliness usually pay off when you're working with a model, just as they do in any other cooperative activity. You can be firm and strong without being arrogant. Give your models a chance to relax now and then. Let them know when they're doing well–a model responds to praise just as quickly as any of us.

Be decisive: It should go without saying that you should be able to handle your camera, lights, and other equipment in a smooth and professional manner. You should also know clearly before you begin shooting exactly what result you're after–in terms of pose, expression, and story. Make suggestions or give directions in a firm, decisive way. You're the boss–even if you allow a talented model considerable freedom in interpreting your instructions. You must set the emotional tone of the shooting session and keep things moving.

Whenever possible, guide rather than direct: An experienced model with imagination and acting ability can make things easy for you. It may be enough for you to explain what you want, and then let the model carry on with a minimum of additional instruction on your part.

Just as in a portrait sitting, you can bring out natural expressions by what you say and the way you say it. Some models can give a fairly convincing smile on command, but a joke or wisecrack on your part

Spontaneity is important: Penn chose this model to portray the part of a young mother in a photograph for a women's magazine. Moving in close for an intimate, low-angle view of the model and baby, he caught a tender, natural-looking expression. The magazine later used a photograph from this shooting in an advertisement. The spontaneity of the picture, along with its strong, simple lighting and composition, helped make the ad highly effective.
[Courtesy *Ladies' Home Journal*]

usually will produce a warmer, more spontaneous-looking result. Your tone of voice–soothing and gentle or sharp and abrupt, for example–can aid in bringing convincing feeling to the model's face. You can create an atmosphere of excitement, relaxation, romance, worry, or good humor by your voice and manner. Appropriate background music on a phonograph can also help create a mood that will get your model to perform effectively.

With some models, subtle and indirect methods such as these may not work. You may have to tell them or show them exactly what you want. This puts more of a burden on you and makes it more difficult to achieve natural-looking results. You'll just have to do the best you can –and hope for better luck next time.

Shoot a number of variations: Don't stop with just one pose and expression. Try as many variations as you and the model can devise and time permits–a profile as well as a full-face or three-quarter shot, for example, or a slight smile as well as a belly laugh. In spite of the careful planning needed in most advertising pictures, spontaneity shouldn't be totally lacking. Sometimes an idea that occurs to you "on your feet" will produce the picture that the client likes best. If you try something and it doesn't seem to be working out, simply break it off without apology and try something else.

A note for self-conscious people: It's quite possible you may feel shy, awkward, and self-conscious the first few times you photograph a model. It's an experience many professionals had when they started out, too, so don't worry about it. Just concentrate on the job at hand. Focus your attention on getting the best picture possible. Your shyness should pass after a little experience.

Pose with care: Pose plays a basic part in this photograph. Beattie took it for a manufacturer of vitamin-enriched bread. The picture had to illustrate the idea that teen-agers frequently have bad eating habits –they fill up on candy between meals. The photographer asked his pretty teen-age model to lie on the floor, lean comfortably on her elbow, and talk into a telephone held in her hand. The girl took this half-awkward, half-graceful pose, which seems perfectly natural.

Remember, in your own work, that getting the right pose is just as important as catching an appropriate and natural expression. Explain to the model the effect you want. Then, so far as possible, let the model assume poses that come naturally.

[Courtesy Continental Baking Co., Inc.]

Working with more than one model: When you have two or more models, your problems of catching good poses and expressions increase. It helps to work out a basic composition of the figures–Beattie used a triangular one here–within which the models have some freedom to move. You might ask them to sit or stand in predetermined positions, but let them turn their bodies or move their arms in a way that is natural to them. Also, try to get them involved with each other.

[Courtesy the Arrow Co.]

Humor in photography: The right model–meek, wispy TV comedian Wally Cox–makes this advertising picture come off. It was taken by Bert Stern as part of a series of sophisticated and amusing ads for a vodka distiller, spoofing the use of "men of distinction" to sell a product. By posing Cox with his body square to the camera and having him look straight into the lens, the photographer emphasized his schoolboyish look. The expression, the locks of hair falling over his forehead, and the two straws complete the take-off on a small boy at a soda fountain. Your subject may not be as well known as Cox, but imaginative posing and direction can help you bring out in any model the characteristics you want to emphasize.

[Courtesy Smirnoff Vodka]

Locations and sets

Every element in an advertising picture should contribute to the total effect–to deliver the client's message quickly and clearly. We have seen how vital the model's role can be. Now let's consider another key aspect–locations and sets. The word *location* means a place where a picture is taken–indoors or out–*away* from a photographer's studio. A *set* means a room or simulated outdoor scene constructed in the studio.

Sometimes you might want to show a product *in limbo*–that is, against a plain or abstract background that doesn't suggest a particular time or place. In that case, your choice of a background would largely be dictated by considerations of composition and design –you might, for example, use a light background to make a dark object stand out, or a green background to contrast with a red object.

However, in many pictures the product must be shown–with or without models–in a location or set. The setting might be used for story-telling purposes–for example, you might include part of a baseball field in a picture featuring a hot dog. On the other hand, you could use the setting to attract the viewer's attention by showing a location that is unexpected and incongruous. Bert Stern's famous advertising shot of a lone cocktail glass in the sand in front of an Egyptian pyramid is an excellent example. Settings and locations also can be used to create a strong feeling of mood.

Whatever the purpose of the setting you use, *be careful that it does not overwhelm the product.* Even if the product is just a small part of the picture it *must* stand out clearly. Its form, texture, and color must be easy to see and it must look attractive. Use your knowledge of composition to make the product the principal center of interest. Size, position, lines of direction, and value and color contrast all are useful tools to this end.

Locations–outdoors and indoors

An advertising photographer may search for weeks for a place that is exactly right for his picture. On the other hand, he may find it right in his own backyard. Just as you should keep your eyes open for good models everywhere you go, also look for good locations. Keep your notebook handy, jotting down a brief description of places you like, and how to get there. You might even take pictures of these locations [a Polaroid or 35-mm are convenient for this purpose] and save them for a permanent visual reference file.

Look for beautiful natural settings–parks, meadows, beaches, woods, waterfalls, lakes, etc. Look for interesting and characteristic buildings–a brick county courthouse, for example, that typifies all county courthouses, a snug farmhouse shaded by old elms, a glass-walled house jutting from a hillside, unusual store fronts, luxurious motels, etc.

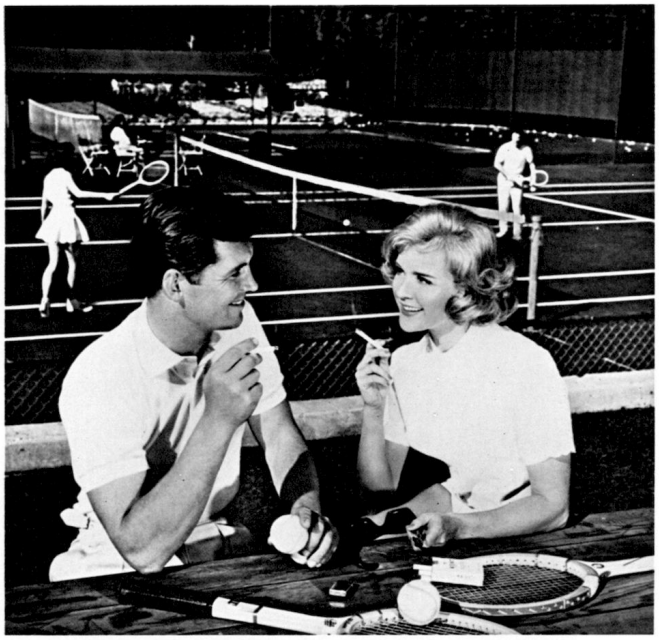
Watch for and note good indoor locations, too. The elegant Victorian lobby of an old hotel may be exactly what you need for one shot, or a bright busy modern office for another. Be sure each location contains details that quickly identify it–details that will come across strongly enough in your picture to tell the story.

Important: You need a signed release from the owner of private property you photograph for an advertisement. See the chapter "Photographers and the Law" in *How You Can Turn Your Photography into Dollars.*

Studio sets

Studio sets may range from the extremely simple to the elaborate. Sometimes a roll of seamless white paper in the background and a prop or two will be all that's needed. At other times a complete room or even an outdoor scene must be constructed. If you are handy with tools and have the necessary space and facilities, you can construct sets yourself. However, most professionals turn this task over to specialists. Even in a small community you may be able to find someone who can help you–for example, a person experienced in constructing sets for a local summer-stock theater or high school plays.

An exotic location used as a suggestive, out-of-focus background makes a significant contribution to this unusual shot, taken by Bert Stern for a vodka distiller. Stern was sent to Egypt to shoot the picture on the strength of a sketch shown the client. However, you don't need to travel far to find good backgrounds for this out-of-focus treatment. Interesting houses, statues, scenes, etc., right in your own area can serve very well.
[Courtesy Smirnoff Vodka]



Sometimes it's more convenient to *add* a story-telling background rather than take the models to the location. For example, Beattie made two separate shots for this picture. The first he made in his studio, posing the two models against a blank white background. The second was the background, which he photographed at a tennis court, throwing it slightly out of focus to keep it subordinate. The two photographs were combined mechanically by the art department of the advertising agency when the final ad was made. [The two pictures might also have been combined photographically by making a huge print of the outdoor scene, setting it up behind the models, and then shooting.] In combining two pictures, as was done here, *be sure the quality and direction of the lighting match.* In this case, for example, it is 45-degree sidelighting.
[Courtesy Kent Cigarettes, P. Lorillard, Inc.]

Beautiful natural settings can be put to good use in many ads, as this graceful clump of birches at a lakeside was here. This picture was shot by Richard Beattie for a cigarette manufacturer and emphasizes the theme of coolness. The soft shade of the trees and the overall coolness of the colors help to suggest this quality. The coolness was achieved by using a weak blue color-compensating filter when the print was made.
[Courtesy Newport Menthol Cigarettes, P. Lorillard, Inc.]

Bert Stern's purpose in this picture was to show the product–a pair of women's shoes–in a romantic location. Sunset on a stretch of beach created the right mood. There are two centers of interest here–the couple in the distance and the shoes in the foreground. The people are made secondary by being thrown slightly out of focus. This makes the shoes stand out strongly–and so, too, does their contrast in color and texture with the beach. Notice that the photographer turned one shoe in profile to the camera, to show its shape.
[Courtesy I. Miller and Sons Co.]

An airport background is an important story-telling element in this photograph by Beattie for a cigarette ad, planned to suggest the rugged, masculine qualities of the brand. The man in the picture is a champion parachutist, and the airport is real. By shooting from a low angle and placing the figures on the left, the photographer provided space on the right for advertising copy and a picture of the product. He included just enough slightly out-of-focus background detail–hangars and an airplane–to establish the location.
[Courtesy Camel Cigarettes, R. J. Reynolds Tobacco Co.]

A set constructed in a studio gives added impact and meaning to this imaginative picture by Stern. Advertising a brand of ready-mixed cocktails, it shows movie actor Boris Karloff and sports writer Bill Corum as boxers, and illustrates a headline saying, "In cocktails, there are principles a man must defend." A nonrealistic treatment was appropriate, and so the set was designed merely to symbolize a boxing ring, not to reproduce one in detail. The exit sign adds a vivid touch of color, and the harsh overhead lighting suggests the lighting of a boxing arena.
[Courtesy Heublein, Inc.]

Props and clothing

Select props and clothing with the same care and attention to the picture's purpose that you give to location and models. An ugly or inappropriate prop, or clothing that is unattractive or out of place, can spoil the picture. The advice we gave concerning sets and locations holds true for props and clothing, too–don't let them overpower the subject. They should contribute, not dominate.

Props

Props of many kinds are required in advertising pictures. Sometimes it's an object for the model to hold–a fishing pole, golf club, or fountain pen, for example. Sometimes props are needed to fill out a studio-built set convincingly–chairs, lamps, office equipment, etc. Sometimes a striking or offbeat prop can act as an attention-getter–the bumblebee in the Penn picture on the facing page, for example.

Whatever the use, choose your props carefully. Be sure the object is in good condition–not damaged or in need of paint. Make certain it belongs–that it's the kind of thing that actually would be used or appear in the situation you are creating. Is it clearly identifiable? [Objects that are arranged or lighted so that they are not recognizable can annoy and distract a viewer.]

Where can you find good props? There are many sources. Professional photographers make a point of noting [on paper or in their minds] places they have found that can supply interesting, unusual, and attractive props. Antique stores, specialty shops of many kinds, department stores, dealers in home furnishings or office supplies, sporting goods stores, hardware stores–these are some of the most important. In larger cities there are theatrical and TV supply houses that rent out many kinds of props. Props sometimes can be rented from the manufacturer or dealer if you guarantee to return them in good condition. Often you can borrow items free in exchange for a credit line, or sometimes a manufacturer will be happy just to have his product shown in an ad even without a credit. Be sure to make clear whether or not a credit will be given before you borrow the item. [And check with the agency responsible for preparing the ad to get permission to include a credit if one is required.]

Clothing

Professional models, male and female, usually have good wardrobes. Discuss *in advance* the clothes you want them to wear, so they'll come to the shooting well prepared. Usually it's a good idea to suggest they bring one or more changes of costume–you may want to try variations in clothing.

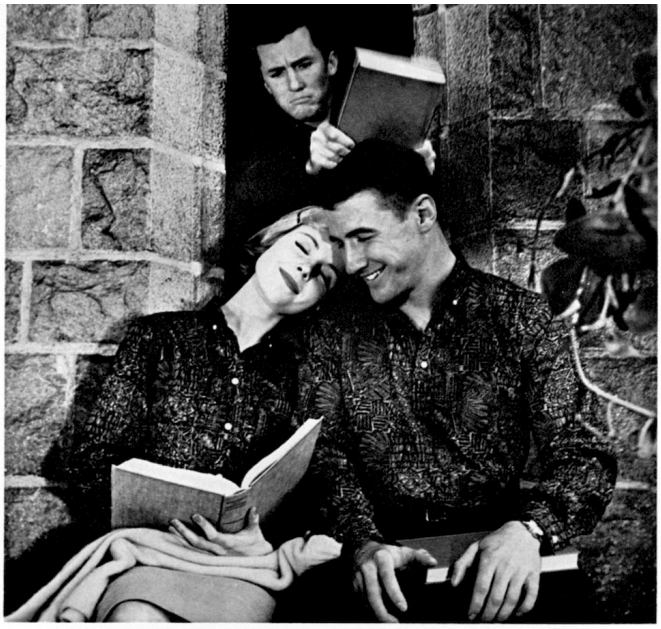
Costumes obviously should be appropriate for the situation you are showing. For most advertising purposes they should be neat, clean, well pressed, and well fitting. An exception would be a picture that stresses realism–an available-light picture of a steelworker on the job, for example.

In general, avoid extremes of fashion that may date very quickly. Plain colors or subdued patterns usually are best; bold stripes, checks, or loud patterns tend to attract too much attention to themselves. Also remember the time element–an ad you are preparing in July might not be scheduled to run until October. If that's the case, don't have your models dress in clothing that looks too summery.

As you're shooting, you or your assistant should keep a constant watch for ugly folds, wrinkles, gaps, or bulges in the model's clothing, and quickly correct them. It's easy to overlook these details in the excitement of shooting–and, if conspicuous, they can harm the picture.

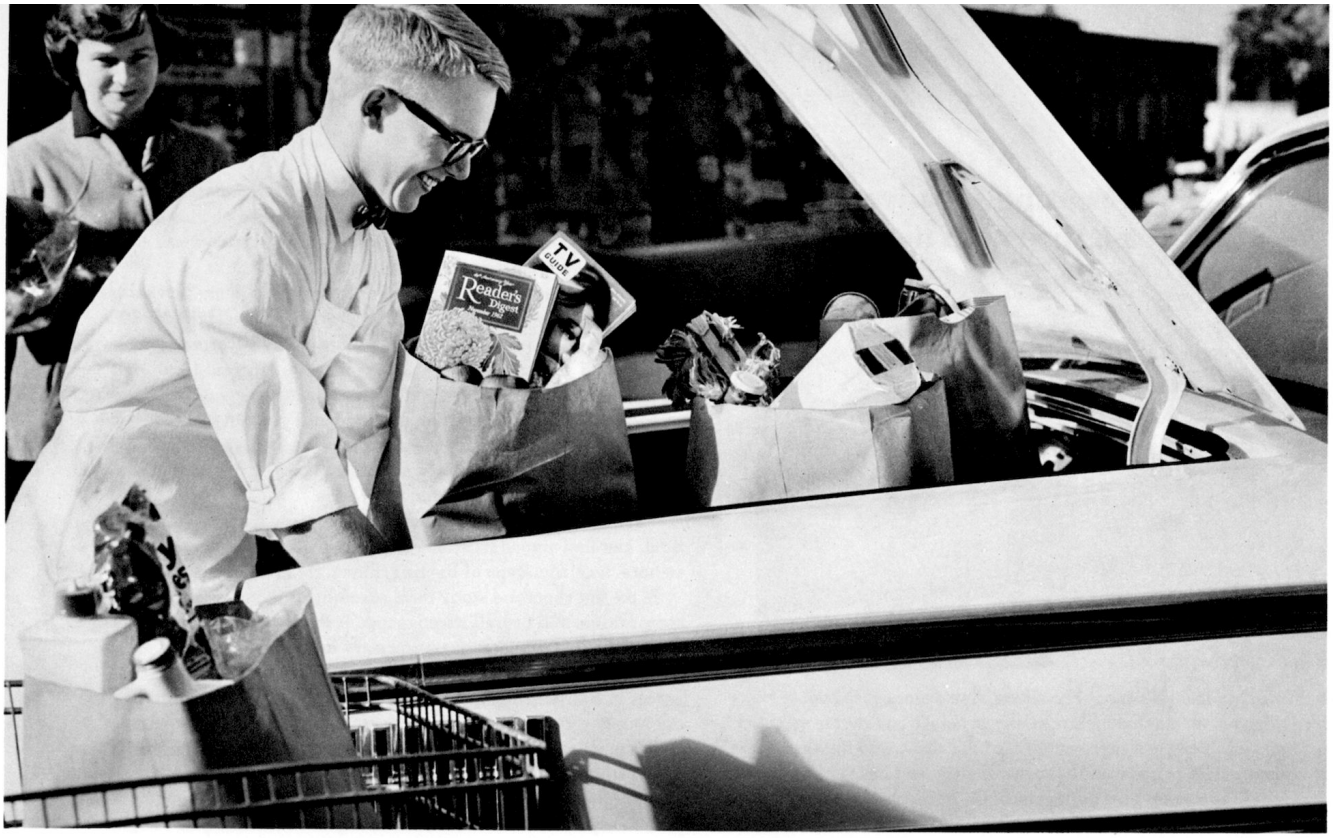
For special costumes, uniforms, etc., try the nearest costume rental house.

Selecting props and clothing with imagination can make your advertising pictures much fresher and more effective. See the accompanying photographs for ideas you can adapt to your own shooting.



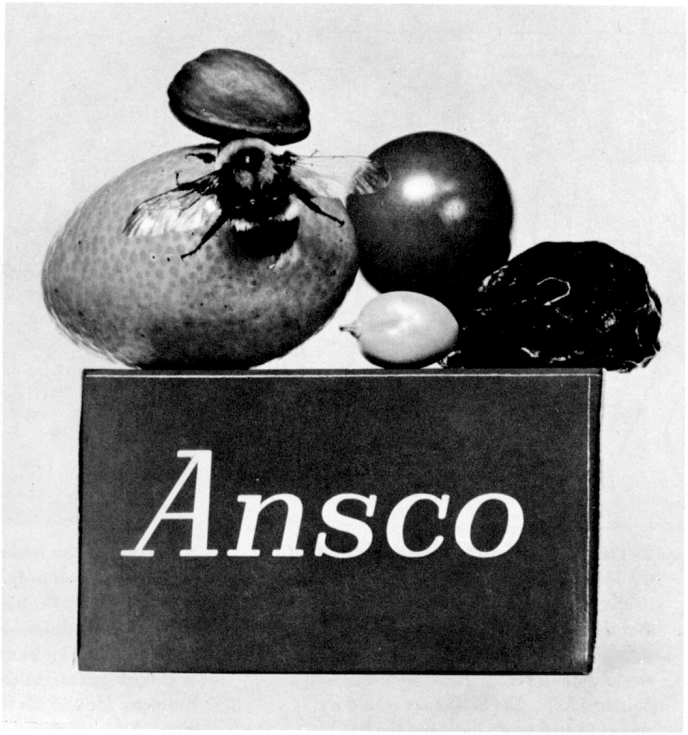
Schoolbooks are vitally important props in this photograph, taken by Beattie for a shirt manufacturer. They establish the people in the picture as students–and provide the jealous boy in the background with an appropriate weapon to brandish over the head of his rival. Props often can help you to reveal the occupation, hobby, interest, or character of a subject. Notice that one book is open, one is closed, and one slightly blurred by motion–a treatment that lends variety and interest to the picture. The shirts on the couple have been carefully arranged so that they have no unattractive wrinkles or bulges. They are the most important things in the picture, and the photographer was careful to display them prominently.
[Courtesy the Arrow Co.]

The old-fashioned punch bowl and cups and the sprigs of holly instantly convey the idea of an old-fashioned Christmas that the client –a whiskey manufacturer–wanted in this photograph. The weathered boards with the eagle in the background actually are a prop, too. The eagle was painted especially for Beattie and positioned behind the still-life arrangement of bowl, cups, holly, bottle, and gift package. Look for simple props that have strong symbolic meaning–such as the holly used here. They often can provide you with a swift and vivid means of getting your ideas across.
[Courtesy Old Crow-National Distillers]



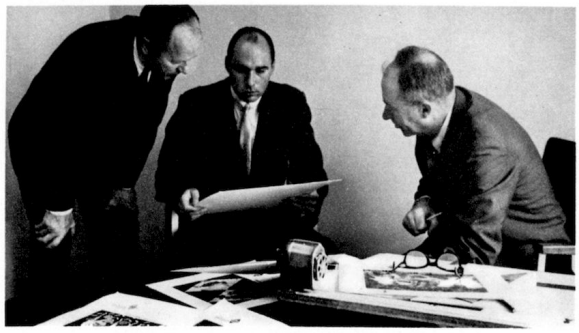
For realistic pictures, choose props and clothing that are believable as well as story-telling. Think through the situation carefully and include things that you might naturally expect to find in it. For example, look at the props in this photograph by Beattie. He shot it for a newspaper ad promoting magazines and carrying the slogan that they "go home with the groceries." The shopping cart in the foreground, the bags stuffed with groceries, the boy's apron and rolled-up shirt sleeves, the open car trunk–all these details look natural and convincing. The two magazine covers are placed so they are clearly visible.
[Courtesy Reader's Digest Association, Inc.]

A glamorous costume and unusual props contribute greatly to this photograph taken by Stern for a vodka distiller. The headline read, "It's the most exciting fashion change in liquor history." A Dior dress, an antique dressmaker's dummy, bolts of satin, and a spool of thread carry out the fashion theme in an imaginative way. Amid these props, the bottle and glass provide an unexpected touch. Notice how prominently the white-labeled bottle stands out against the black dress, and that many lines of direction lead to the bottle. The background is plain, so it won't distract.
[Courtesy Smirnoff Vodka]



Well-chosen props express the idea of color balance in this photograph taken by Irving Penn for a film manufacturer. Penn selected the various small objects–fruits, a nut, and a bumblebee–with an eye to the element of surprise as well as interesting variety of shape, size, texture, and color [the original was photographed on color film]. The bee is a preserved specimen from a museum.
[Photographed on Anscochrome Color Film]

Creating an advertising picture with models



1 Planning the picture: The advertising agency responsible for producing an ad may hold many meetings before one idea is accepted as final. Here Beattie, a representative of the client, and the agency art director are going over sketches the art department has worked out showing different ways the garments might be displayed. The client wanted to show at least three items in his line of cotton knit sleepwear for teen-age girls. The styles were bright and novel, and the picture required a gay, lively mood that would appeal to this market. In planning sessions, you can make a valuable contribution by suggesting ways that photography can convey the desired mood and message.

We've discussed and demonstrated how to use props, models, sets, locations, and clothing as elements of an advertising photograph. Now let's see how they all work together by watching Beattie create a photograph for a national advertisement.

The client wanted a color picture to advertise pajamas and shifts for teen-age girls. The photographer's procedure in carrying out this assignment is a good one for you to follow in any advertising work you do. The product and message may be quite different from what you see here, but try to be equally thorough and imaginative.

First, get all the information and guidance you can from the client or his representative. Learn exactly what is wanted–the purpose of the photograph, the mood it should set, the audience it should reach, the features of the product it should emphasize.

Next, select your models, props, clothing, and anything else you need, and find a good location or construct a set. Also decide what camera, lens, film, type of lighting, filters, etc., will be best for the job.

Make test shots and study them carefully in terms of lighting, composition, and overall effectiveness. Is there anything confusing, distracting, out of place, or unnecessary in the picture? If so, remove it. Is there anything you can do to help get the advertiser's message across in a stronger or more interesting way? If there is, do it. Work out as many details as possible *before* you shoot your final picture.

When you take the final picture, shoot a number of variations. No matter how closely you follow a layout or preconceived idea, there is always something you can vary–the lighting, the composition, or the pose or expression of a model, for example. Sometimes just a slight difference in one of these variables can make one picture much better than another. Therefore, while you have everything set up, shoot enough pictures to give your client a good choice.

Let's examine this procedure in closer detail, from planning session to final photograph.

2 The rough sketch: Here's a sketch of the idea finally agreed upon. It was decided to show three girls on a bed, to emphasize that the merchandise was sleepwear. An unusual camera angle–shooting almost straight down on the girls–would show the pajamas fully. The bedcovers would be shown kicked off to illustrate the headline "You'll flip your covers for Lolli-Jamas."

Be sure to find out exactly what the proportions of the picture will be as it runs in the ad. Then compose so your photograph will fit the required space [or can be cropped to fit].

3 Selecting the bed: Because the bed was the principal prop, it had to be selected with great care. Beattie wanted an unusual, decorative, feminine-looking bed–something that an imaginative high school or college girl might choose for her bedroom. He and his assistants searched many shops till they found the ornate white bed shown here. Before renting it, the photographer had it measured to be sure it would hold three girls. If scale or size is important in a prop, check this basic detail before making your final choice.

4 Selecting the models: Beattie contacted several model agencies and arranged interviews. He needed girls in their mid-teens–pretty, vivacious, but not too sophisticated–who would appeal to teen-age girls and their mothers who looked at the ad. He decided to use two blondes and one brunette for variety. Here Beattie is discussing the assignment with one of the models he chose. It's a good idea to get a sample picture of each model you interview. Then you can go over all the photographs at one time and make a final decision.

5 Shooting test pictures: After the bed was delivered to his studio, Beattie set up his camera on a studio balcony so he could shoot almost straight down on the bed. He used an 8x10 view camera and color-transparency film because the agency preferred a large transparency for reproduction. A wide-angle lens took in the whole bed. He got three stand-ins to pose while he arranged lights, camera, and composition, and took test pictures.

For his first test shot [*top left*] he asked the stand-ins to lie on the bed, and then arranged a satin blanket in casual folds as if it had been kicked off during the night. The picture was taken with electronic flash on a daylight-type color film. [Beattie often uses electronic flash for his studio work because of its convenience and coolness.] However, he was not satisfied with the result. He felt the folded blanket looked too static. The picture lacked the liveliness he wanted, so he decided to introduce some motion blur.

He made a second test [*top right*], this time using 3200K studio lights and a Type B film. He placed a mainlight on the camera's right, close to the girls, and used another light on the left as a strong fill. This gave soft "open" shadows that would reproduce well in color. Then, just as he took the picture [with a relatively slow shutter speed], he had assistants pull off the blanket. The resulting blur of the blanket makes the photograph more lively and interesting than the first shot.

6 Shooting the final pictures: Solve as many problems as you can in the early stages–then you'll be free to concentrate on working with your models and getting the best poses and expressions. With the knowledge gained by his test shots, Beattie knew exactly how to proceed when shooting the final pictures, one of which is reproduced at top right.

Notice that Beattie has placed black paper on the floor to make the ornate headboard stand out more strongly than it did in the test shots. Also, he changed the pillows from patterned to plain ones, because the pattern distracted attention from the pajamas. The light blue pillows, sheet, and blanket provide a pleasing uniform background for the bold, bright colors of the sleepwear.

For the final pictures, Beattie placed three assistants at the foot of the bed–one in the middle and one at each corner. At a signal, they pulled the blanket toward them and he shot. His exposure–1/10 second at *f*/22–was slow enough to register considerable motion blur.

Beattie took several shots, varying the poses of his models and trying to catch pert, happy expressions. To carry out the theme of "you'll flip your covers" he had the two outside girls push the blanket aside at the instant his assistants pulled it off the bottom of the bed.

You'll flip your covers for LOLLI-JAMAS
The cutest line of slumber numbers that ever shared your dreams! Wonderful, easy-care cotton knit pajamas and shifts, designer-styled by Lolli-Jamas in exclusive knit fabrics, zingy colors. Misses and Teen sizes at all the nicest sleepwear centers. See 'em soon!
2-PANTS PAJAMA! Blue Jamaica shorts and red tapered pants, both to underscore a red, white and blue pullover. 3-piece set. Teens about $6. Misses $7. LUSH JUNGLE PRINT on brushed cotton pullover. Soft as cashmere! Blue / Avocado pants. Carnation pink / Pink pants. Misses about $6. PERKY SHIFT COAT with Jamaica Shorts. Chic side slits. Blue/Jay and white/Blue shorts. Burgundy and white/Burgundy shorts. Teens about $7. Misses $7.95.
MODERN GLOBE
Lollipop
LOLLI-JAMAS®

7 The advertisement: The picture that the agency and client finally selected, and the way it was cropped, is shown in the advertisement reproduced in small size here. [The ad actually occupied a full magazine page.] The expressions are spontaneous and bright, and the positions of arms and legs are interestingly varied. Good photography carries much of the burden of selling the product–it shows what the garments look like and says that they're fun for smart young girls to wear. The client's message is delivered in a direct, lively, and attractive manner.
[Courtesy Modern Globe, Lollipop]

Photographing food for advertising

One of the most common and important types of advertising assignment is the food still life. If you turn through the pages of any newspaper or national magazine you'll probably find many examples of this type of picture. The realism and rich detail possible in a photograph–particularly a color shot–make photography an ideal medium for displaying the mouth-watering qualities of good things to eat.

So great is the demand for effective food pictures that some photographers specialize in this field. But even if you don't intend to make a specialty of it, a knowledge of how to set up and photograph a food still life is valuable for the occasional assignments it may bring you, and is thoroughly interesting in itself.

You can apply many of the things you've learned about lighting and composing still lifes to food photography. The advice given on equipment and procedures in the still-life lesson generally holds true here, too. However, food photography requires special methods which we'll demonstrate on this and the following pages.

Planning and setting up

When planning an advertising food picture, you may be given very specific directions by the client–or you may have considerable freedom to work things out as you wish. If you have this freedom, see how many picture ideas you can come up with that carry out the purpose of the ad. Among the questions to consider are these: Should you use an extreme close-up or a relatively distant overall view? Should you show just the food or also include a person or part of a person? Should the picture suggest activity such as cooking, serving, etc.? What props, background, and lighting will be most effective for the story you want to tell? Carefully weigh the pros and cons of each possibility before you make your final decision.

Be careful to select the most perfect food specimens you can for the picture. If your subject is a piece of cake, for example, it may be necessary to have several cakes baked and sliced before you find a piece with just the right texture and color. You may need to examine many apples or pears or carrots to find some good enough for your photograph. But without the right ingredients you won't be able to achieve the luscious, appetizing perfection that a good food picture must have. Many communities have food shops that carry a fancy line of fruit, vegetables, and salad greens. These may be able to supply you with more perfect items than you could find elsewhere. To help in selecting and preparing food, professional photographers often use the aid of a home economist, as Beattie did in this demonstration.

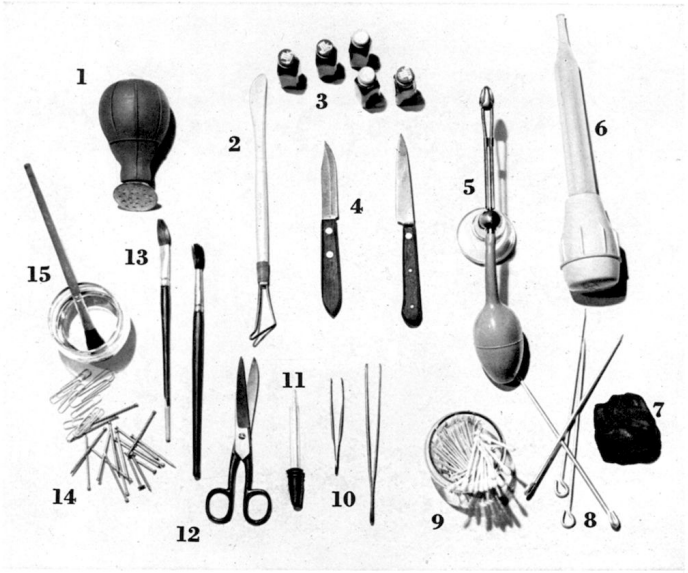
Almost any studio [or room converted to a temporary studio] will be adequate because most food photographs don't require a great deal of space to set up. You should have a refrigerator in the studio or handy to it for keeping items fresh until you're ready to photograph them, and a cooking range should be available, too.

If the food is perishable, use flash. Exposure to the hot illumination of floods or spots can quickly melt ice cream, wilt salad greens, or dry up juicy slices of fruit. With items that are not delicate and fragile you might use floods and spots, a bank of floods [such as Penn did in the still-life lesson], or window light.

In this demonstration Richard Beattie shows in step-by-step detail how to set up and shoot a food still life for advertising. His assignment was to produce a color picture of canned baked beans and sliced frankfurters for use in a national ad by the bean canner. The purpose of the shot was to make the beans look as delicious as possible. [The final color photograph is reproduced on page 21.]

The agency gave Beattie considerable freedom in working out the details of the picture, subject to final approval by the client, of course. Beattie first mulled the problem over for a while. He weighed the idea of showing the beans being eaten, then discarded it–this kind of shot is tricky to handle because the result can look messy rather than appetizing. He also decided not to show the beans being stirred while heating because this would emphasize preparation rather than enjoyment–the point he wanted to bring out.

Finally, he decided to show the beans and franks being served in a simple, pleasant setting that would suggest a terrace or patio. He would shoot a close-up of the beans being lifted out of a bowl with a serving ladle, thus putting action into his still life. Although no person would show in the picture, it would suggest the presence of people about to enjoy the meal. Since the beans-and-frankfurter dish is a meal in itself, he decided to include no other food in the picture except a green salad in the background.

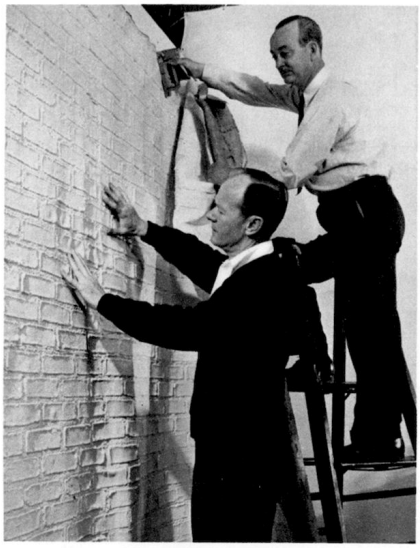


Tools and materials

These items are helpful in setting up food still lifes. They are inexpensive and available at art-supply, hardware, food, or drug stores. Many will be shown in use in our demonstrations.

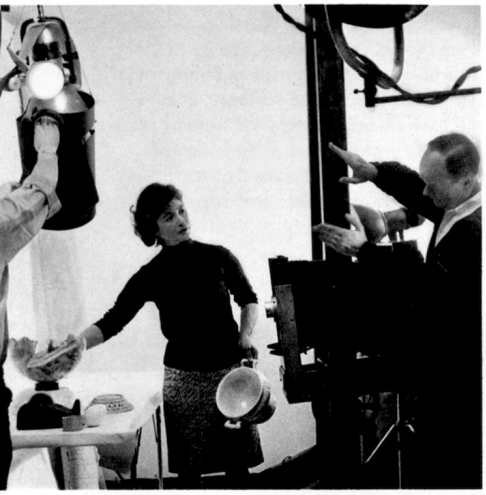
1 Rubber water sprinkler for keeping food moist.
2 Modeling tool for clay, used to shape and trim soft materials such as mashed potatoes, cake frosting, etc.
3 Bottles of food dyes in various colors to lighten or darken food.
4 Sharp, thin-bladed knives for slicing, cutting, and trimming.
5 Atomizer for spraying water on fruits or vegetables.
6 Bulb-type baster for removing liquids without disturbing the setup.
7 Modeling clay [or "Tacky Wax"] for holding small objects upright.
8 Skewers for roasts or fowl.
9 Toothpicks and cotton swabs for adding dye to touch up surface defects.
10 Tweezers to make minute adjustments of leaves, stems, or other delicate objects.
11 Medicine dropper for adding water or glycerine to small areas.
12 Sharp scissors for cutting and trimming.
13 Small camel's-hair artist's brushes for adding dyes, paints, etc.
14 Nails and paper clips for construction purposes, holding objects in place, etc.
15 Dish of salad oil and a brush for adding highlights to salads.

Here's a rough sketch that Beattie used as a guide in preparing his beans-and-frankfurters photograph. Making a number of quick sketches helps you visualize things when you're planning a picture. You don't need to draw carefully.



1 Putting up a background: Beattie wanted bricks in the background to suggest the house wall of a terrace or patio. He bought a roll of rubberized wall covering that simulated white-painted bricks. Here he and an assistant are stapling the textured material to a large plywood flat in his studio. [Notice the staple gun in the assistant's hand.] When photographed slightly out of focus, the material will look like real brick.

Wall coverings that imitate a variety of materials such as brick, stone, and wood are available at wall-covering stores. Usually it's much easier to create a "wall" in your studio than to bring all your equipment and material to the real thing. Be sure to get enough wall covering so there won't be gaps around the edges of your picture area, and attach it smoothly.



2 Arranging the basic setup: Here Beattie, his wife, and an assistant are making a preliminary arrangement of the still-life objects and lights. A simple utility table, covered with yellow paper, holds the objects. Beattie decided to use electronic flash because some of the food was perishable. The camera is an 8x10 Deardorff with a 12-inch *f*/6.8 lens—long enough to let him shoot from a distance that minimized perspective distortion. He planned to use a daylight-type transparency film.

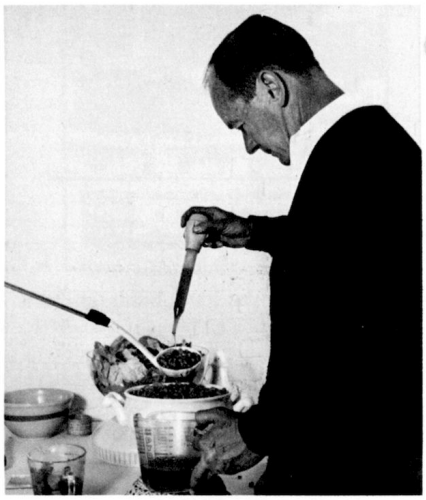
3 Preparing the beans and frankfurters: Working with a home economist in a kitchen next to his studio, Beattie begins the long but very important job of sorting beans so only the most perfect ones will show. Dozens of cans were opened, the contents strained, the beans placed in bowls, and the sauce saved. Then each bean was examined and the best were collected in a bowl. Also, frankfurters were cooked, carefully sliced, and added to sauce in a measuring cup. Be sure to use a *sharp* knife when cutting or trimming things—a dull knife may cause unpleasantly ragged edges.

4 Selecting salad ingredients: The salad ingredients were selected with equal care. With lettuce, tear apart four or five heads and pick out the best leaves, as Beattie is doing. Put these in a plastic bag and store in a refrigerator until you're ready to shoot. The discarded leaves can be used as stand-ins while you arrange lights, compose, etc. With other perishable foods, follow a similar procedure—use a substitute as a stand-in; don't bring out the item to be photographed until the last moment.

5 Putting the beans in the serving dish: Here the selected, most photogenic beans are being transferred to the casserole dish that will appear in the picture. To reduce the number of beans required, a glass bowl is inverted in the casserole and the beans are heaped on top. The bowl won't show when covered with beans; the casserole will look full. You can use a similar trick with other foods—for example, build a salad on a concealed base of crumpled newspapers, saving your most perfect leaves for the top layer. [The wicker basket in this picture was used to raise the casserole a few inches to give Beattie the composition he wanted. It will not show in the final picture.] On the following page we'll show how to make good food look even more delicious.

6 Attaching the ladle: It would have been difficult, if not impossible, for an assistant to hold the ladle steady in exactly the position Beattie wanted it. Therefore he securely attached the handle of the ladle with friction tape to the adjustable boom of one of his light-stands. Thus the ladle could be positioned at an angle, raised, lowered, moved closer or farther back. Once in position, it would remain absolutely fixed.

7 Filling the ladle: Putting just the right amount of beans and sliced hot dog in the ladle and arranging them is a delicate task. Beattie used a pair of tweezers to arrange the top layer. You'll find that a pair of tweezers is invaluable for making fine adjustments of small, fragile objects.



8 Adding the sauce: A bulb-type baster is used to get exactly enough sauce in the ladle to coat the beans without hiding them. Just before making the exposure, Beattie will have an assistant add a little more sauce so it runs over the edge of the ladle and drips down. This will make the picture look as if it was taken while somebody was ladling out the food.

9 Keeping the salad fresh: The selected ingredients of the salad are not removed from the refrigerator until the last possible moment. It's particularly difficult to keep a salad looking crisp and fresh. To maintain its color and brightness, Beattie or an assistant repeatedly sprayed it with cold water from an atomizer.

10 Adding highlights to the salad: To put appetizing, glossy highlights on a salad, touch it up with ordinary cooking oil applied with a brush, as is being done here. This may need to be repeated several times during a shooting.

11 Taking an exposure reading: Here Beattie is using an electronic-flash meter to take a reading of the lights. His main illumination is from two electronic-flash units bounced off white cardboard reflectors to the right and left of his camera. Almost directly over the ladle is a third electronic-flash unit with a snoot of black construction paper. The purpose of this light is to put crisp highlights on the beans and frankfurters—the picture's reason for being.

Rather than place the meter's probe on the groundglass, as Penn did in his demonstration in the still-life lesson, Beattie finds it more convenient to take his reading from the position of the subject. Both methods are good.

Here's the final color picture

This close-up picture achieves what the assignment required–it makes the beans and hot dogs look delicious. The picture was taken on daylight-type transparency film. The exposure was for electronic flash at *f*/16–a wide enough aperture to give the out-of-focus background Beattie wanted.

Composition principles have been put to good use here. The handle of the ladle makes a strong line of direction leading from the upper left to the center of interest, the beans. They occupy a dominant position in the foreground, and have the strongest, warmest colors of all. The greens and yellow-greens of the salad in the background contrast with the browns of the food and give variety to the color scheme. The warm, cheerful colors, set off by the white or near-white of the bricks, establish a pleasant mood. The reflection from the yellow paper adds a touch of color to the casserole, ladle, and other objects, which otherwise might look too cold. Notice that the casserole is not exactly centered in the picture area–this might look static and uninteresting. And the casserole is cropped dramatically, so that it seems right under our nose.

To emphasize the beans strongly, the photographer focused selectively on them and subdued the salad by throwing it out of focus. Light from the electronic-flash unit with a snoot has created sparkling accents on the beans and frankfurters, making them glisten appetizingly.

[Courtesy Stokely-Van Camp, Inc.]

Molded jello can quickly lose its shape at normal room temperature. For a firmer, longer-lasting "model," use three times as much powder as normal, as the photographer did here.

To make butter spread in a smooth and creamy-looking way, use a *warm knife*. This method also can be used to melt the surface of ice cream slightly when it is too hard and you want it to appear creamy.

Professional tips on photographing food

Preparing the setup for a food photograph requires special methods and careful attention to detail, as you have just seen. To help you successfully photograph many different kinds of food, here are some more professional tips.

Remember that your purpose is to show food that *looks* good to eat. It must be cooked and garnished for appearance, not for taste. Many hot, cold, and moist dishes look their best only for a very brief time. Electronic flash is much easier on perishable items than floodlighting–but even with electronic flash these items may soon dry, wrinkle, or become crusted when exposed to air. Therefore, have your lights and camera all set up and be prepared to photograph the food as quickly as you can once it's removed from the stove, refrigerator, or protective wrapping.

To cut the charred "grill" marks on these hamburgers, Beattie applied metal skewers heated by a propane torch. This method makes it easy to get exactly the effect you want, and the marks look natural.

The appetizing glaze on this roast was achieved by brushing its surface with cooking oil. Glycerine can be used instead, but if you use cooking oil the meat will be edible after the shooting is over.

The photographer stained these pears green with food coloring to contrast with the red cherries and give a more lively, festive air to the picture. Go easy when you add food coloring–a restrained application usually looks better than a garish effect.

Purchasing

Find a good grocer–a man who is proud of the quality of his merchandise. Inform him that you want the choicest items for photographic purposes, and become a steady customer. If you know in advance you'll need certain things, you can ask him to look for particularly choice specimens and save them for you. He also may be able to help you in obtaining out-of-season items through his wholesaler. For example, you might need fresh strawberries for a picture you are taking weeks or months before the strawberry season.

Generally speaking, you'll be able to get more attractive-looking cuts of meat at a meat market or butcher shop than at a supermarket. This does not imply that the supermarket's quality is lower; it merely means that supermarkets often use mass-production methods of cutting and packaging. At a store specializing in meat and poultry you may have a wider choice and get more individual attention. The butcher can cut the meat according to your directions.

The fewer hands that fruit or vegetables pass through, the less danger that they will become shopworn. In season, go close to the source. Try farm markets or roadside stands where you can get fresh produce.

Care and storage

Wash all food promptly and wrap it in aluminum foil or other protective material. Store it in a refrigerator at a slightly colder temperature than normally used. However, do *not* freeze it [unless it is a frozen product such as ice cream].

Keep reserves of some items in the refrigerator. Then you can substitute them for the ones you are photographing if these wilt or dry out before you complete your shooting.

Many items–particularly salad greens–need to be kept continually moist. Once you've removed them from the refrigerator, spray them from time to time with an atomizer, as we've shown you. Use water or a mixture of half water, half glycerine. The mixture will be effective longer than plain water because glycerine doesn't evaporate.

Preparing fruit and vegetables

Avoid garnishing a dish with watercress, which is very delicate and begins to wilt almost instantly under hot lights. Instead, use parsley, which is a hardier "model."

Some fruits and vegetables look more appetizing when they are polished to have a sheen. You can accentuate this sheen–on a bright, red apple, for example–by brushing on a thin coat of cooking oil.

Vegetable coloring or "food dyes" [available at most grocery stores and supermarkets] make it possible for you to accentuate the color of fruits and vegetables. For example, if the center of a sliced peach or strawberry is too pale, use a diluted solution of dye to intensify the color. Don't overdo the use of these dyes or the results will look faked. Add a little at a time and gradually darken the fruit until the color and value are the way you want them.

Don't overcook vegetables–they may lose too much color and texture. For example, green beans should be cooked only long enough to make them slightly limp, never so long that they become mushy and olive colored. A teaspoonful of baking soda added to the cooking water helps keep green vegetables green.

Spray boiled potatoes lightly with glycerine to make them gleam. With mashed potatoes, keep an ample supply warm on a stove in a covered dish. When the mashed potatoes you are photographing begin to get crusty, replace them with a fresh supply.

Preparing meat, fowl, and fish

Steaks, roasts, chops, hamburgers, frankfurters, etc., should be kept moist and cold until you're ready to cook them. Leave them in their wrapping of butcher's paper or cover with a damp towel and store in your refrigerator–*without freezing*.

Don't overcook. Meat usually should be on the rare side for good color and a juicy look. Fowl should be well done but not dried out. Fish should be cooked until it has a uniform white look.

When red meat needs more juice, add Kitchen Bouquet or a similar brownish liquid–it will look like juice in a photograph. To provide extra juice for ham or chicken, use a mixture of glycerine and water.

Meat cooked rare for good color inside may not look well done enough until you scorch the outside. Use a small propane torch [available at most hardware stores] for this purpose, moving it back and forth until the outside has an appetizing "charcoal-broiled" look. Ham, roasts, and steaks may require considerable scorching. Fowl usually needs only slight browning of the legs, wings, and raised portion of the breast. With fish, use the torch very lightly.

To put grill marks on hamburgers, hot dogs, etc., first cook them to the right color under a broiler. Then use the propane torch to heat a metal skewer. Apply the skewer like a branding iron, spacing parallel "grill" marks at intervals along the meat. [Be sure to use a protective cloth to hold the skewer.]

If hamburgers cook too dark or tend to fall apart, buy a ground mixture of half beef and half veal. It forms up into patties better and cooks lighter.

Meat, cheese, seafood, or other casserole dishes should be broiled to give them a crusty top. Then move the dish to the top of the stove and heat it over a burner until steam breaks through the crust. Get the dish in front of your camera and shoot quickly before it cools off.

Pastries, cakes, and desserts

Baked rolls, sweet rolls, and other pastries usually require no special preparation. However, if they have icing or a fruit topping, add a few drops of water to create sparkling highlights.

Once you cut a cake, the cut surface must be photographed within minutes, before it loses its moist look. Use one piece as a stand-in and cut a fresh slice for each of your pictures. Be sure you start with enough cake–just one may not be sufficient.

Chocolate cakes from standard recipes may turn out too dark to photograph well. If so, add less chocolate. On the other hand, to emphasize the pattern in a marble cake, add a bit more chocolate than normal to the dark mix.

To photograph a dish of ice cream, prepare several dishes of ice cream in advance and place them in the refrigerator's freezing compartment. Use crumpled paper in a dish as a stand-in. When you're ready to shoot, bring out a dish of ice cream and put it in position. Let it warm up just a little so that the surface will look soft and creamy, with a delicious gleam. You may have time to make two or three exposures if you work fast–then the ice cream must be replaced because it has melted too much. Bring out a fresh dish and continue.

With gelatin desserts, use three boxes of powder with the amount of water recommended for one. The result will have firmer body and stand up better under studio lights–but will look perfectly natural. If these proportions make the dessert look too dark, use one envelope of unflavored gelatin to lighten it. Also, you can blend light and dark varieties to get the shade you want.

Black coffee often photographs too black if it is brewed at normal strength. If this happens, dilute it with more water. Tea, on the other hand, tends to photograph light. Brew it extra strong.

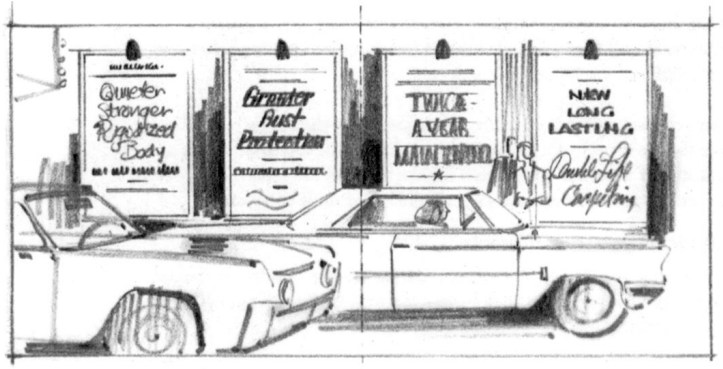
How Richard Beattie shoots an automobile ad

Whether you shoot a large object or a small one, the basic principles are much the same. Large or small, the object has form and texture which you must clearly reveal. It has important details or features which you must accentuate by lighting or composition. It has a use which must be shown or implied. It must be presented to the viewer in a pleasing way that will stimulate a desire to own the object. Naturally, however, the actual working procedures are more complex with bigger objects. To show how to photograph large objects, Beattie demonstrates in step-by-step detail how he shoots an automobile ad in a studio.

In this case he worked according to very detailed instructions concerning layout and composition. The ad was to run in color across two pages in various national magazines. It was to show two current models of the client's make of car in a setting that evoked the glamour and excitement of the new theatrical season. Scheduled to run in the fall, it was planned and photographed in the preceding spring. Theatrical posters in the background were to be left blank when the photograph was made. The words, emphasizing features of the cars, would be added later when the ad was made final. [The color picture that Beattie got and the ad are reproduced on page 28.]

Because of the difficulty of finding the right location, the problem of contending with traffic and crowds, controlling the lighting, etc., Beattie decided this particular shot could best be handled in a studio. He rented a large one with ample floor space and a powerful freight elevator that could lift an automobile. Finding a studio of adequate size obviously is an essential first step if you are to photograph large products. If your own studio is not adequate, you may be able to rent suitable space, as Beattie did, or perhaps you can temporarily convert a portion of a large garage or a warehouse to a studio.

As you study the photographer's procedure in executing this assignment, notice his methods for handling the special problems of automobile photography. You may be able to apply them to future assignments of your own. But also notice the similarity between the methods used here and in previous demonstrations with much smaller products. If you can learn to handle the small jobs successfully you can learn to master the big ones, too.

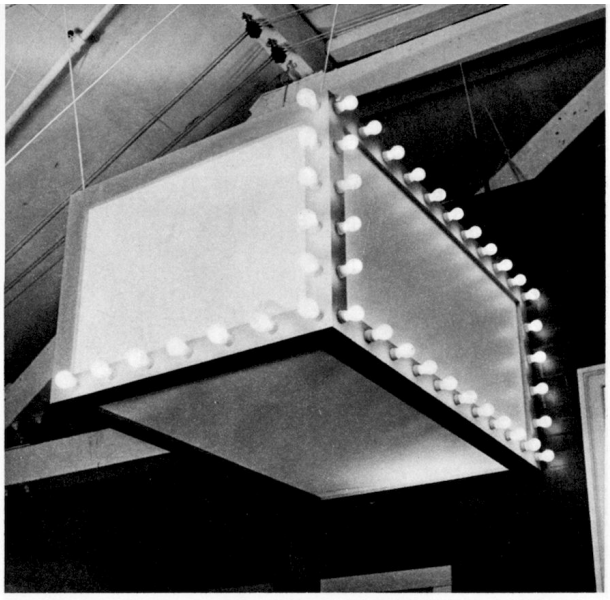


1 The layout: This is the layout for the ad, worked out by the advertising agency's art department and given to Beattie. It shows two automobiles apparently pulled up beside a theater. Since it was to be a two-page "spread," the positioning of the two cars, the models, and the posters on the background wall was critical. They had to be arranged so that nothing important would be cut in two by the "gutter"—where the two inside edges of the pages come together [indicated here by a broken line] and the magazine is stapled. Notice that the posters are positioned two on each side of the gutter, and the grille of the nearer car—a basic design feature—clears the gutter.

2 Planning the set: When you build a set for photographic purposes, you can't leave anything to guesswork—you must work out all the details beforehand, including the exact size and proportions of the set. The best way to be sure your planning is sound is to set up your camera in front of the subject and study it in the viewfinder.

Beattie and a representative from the agency brought the two cars to the studio several days in advance of the shooting, along with a camera and lenses of different focal length. The photographer chose an 8x10 view camera for this assignment because he wanted a large film size for maximum quality and a groundglass for working out the composition to fit the layout precisely.

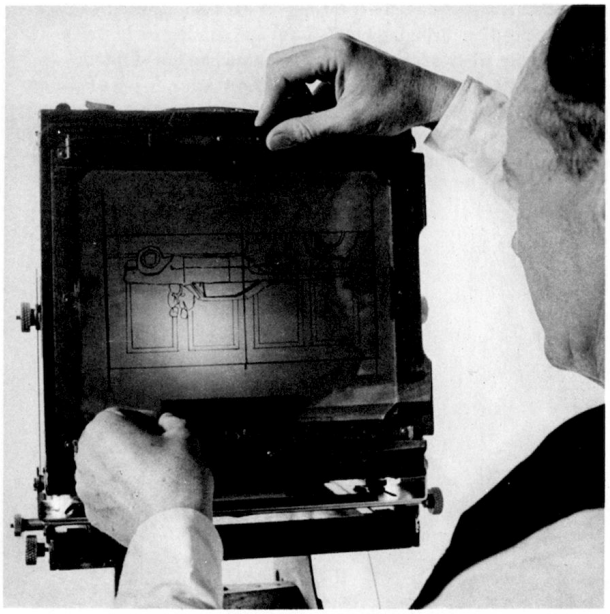
The cars were placed in position, as shown in the illustration. Beattie then tried several camera positions, focal lengths, and different distances between the cars until he found a combination that gave him proportions that matched the layout. [Remember that, to *increase* the relative size of a foreground object, you move it closer to your camera, or move the camera closer to it, using a wide-angle lens if necessary to get the coverage you want. To *decrease* the relative size of a foreground object, you move it away from the camera, or move the camera farther away from it, and use a long lens.]



3 Constructing the set: The standard construction of large-scale sets for photography involves the use of flats—large panels of plywood or fiberboard nailed to frames of 1x4 pine or heavier stock. In this case the flats were constructed away from the studio. The pieces were cut according to Beattie's detailed measurements and directions, then checked to see that they all fitted properly. The panels were delivered to the studio and bolted together to form the background for the shot.

The view from behind the set [*left*] shows how the flats were braced by large pieces of wood. They also were attached to a large truss overhead—a permanent feature of the studio designed to serve this purpose. After the flats are erected, they can be painted or covered with any wall-covering materials desired. Here an imitation brick material was used to simulate the wall of a theater. Blank posters were prepared and set in position and lights were placed over them.

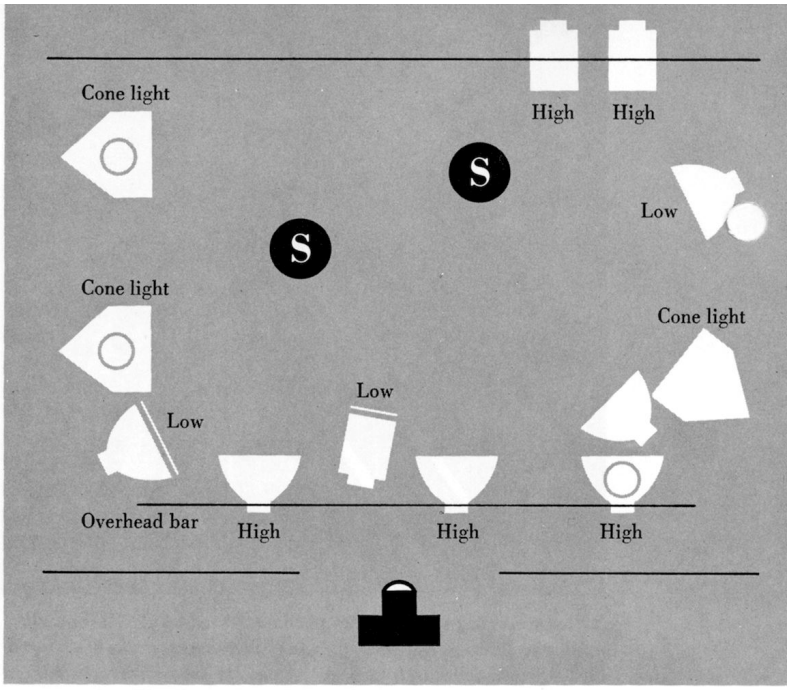
At right is a close-up of a simulated theater marquee, a portion of which was to appear in the ad. This important detail quickly helps to establish the setting. It was constructed of wood and cardboard and painted outside the studio, then brought in and hung in position by wires. Sockets and electrical wiring were provided for dozens of yellow and white electric light bulbs.



4 Checking the set: With the set completed and the cars in place, Beattie and a representative from the agency study a detailed layout of the ad to see that everything is right [*left*]. To check the precise size and placement of all picture elements, Beattie uses a drawing of the scene on the back of his view camera [*right*]. The drawing is made with a grease pencil on a sheet of transparent acetate.

To use this kind of guide, follow this procedure. Cut a sheet of transparent acetate so that it is a little larger than the dimensions of your groundglass. With a black grease pencil, draw in the format of the photograph as it will be cropped to fit the ad layout. [Allow at least an inch margin at sides, top, and bottom.] Outline the main picture elements exactly to scale and in the position in which they are to appear. [For directions on how to copy a drawing to scale, see your Technical Manual.] Attach the acetate sheet to the groundglass with tape. Finally, adjust the subject and your camera until the groundglass image exactly matches the acetate drawing.

Obviously, using an acetate sheet is most convenient with a large camera having a groundglass back. However, you can use it with small equipment, too, when the placement of an object in the picture area is critical.



5 Adding the lights: With the set and the location of the automobiles taken care of, Beattie's next step was to work out his lighting. His basic procedure was to arrange direct lights that would model the form of the automobiles and make them glisten attractively. Then he added a number of bounced lights to fill in the shadows to get the relatively flat lighting ratio he needed for good color reproduction. Finally he added small spots and floods to give even more sparkle. Studio [3200K] floods and spots were used because they are available in a variety of sizes allowing utmost flexibility.

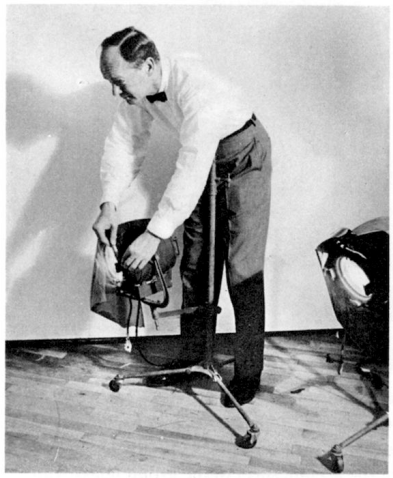
Notice the three huge, powerful cone-shaped floodlights in the photograph, and their relative positions in the lighting diagram. These giant floods can be rented from theatrical and TV equipment rental outfits. One is aimed directly at the nearer car from approximately a 45-degree position, bringing out its form and shining on its grille.

Not visible are two large spotlights mounted on top of the background "wall." These were used as accent lights, to put gleam on the cars and models. Two of the lights on the overhead bar in the foreground also were pointed at the cars to make them glisten. There is no hard-and-fast rule governing the positioning of accent lights in automobile photography. It must be done by eye. Work for long, narrow reflections that emphasize the contours of the car. In general, avoid glare or strong "hot spots."

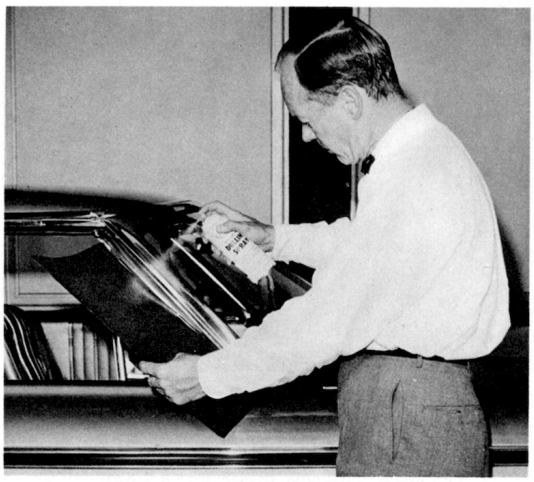
Fill-in lights include the two huge cone lights bounced off the studio's white-painted ceiling and one of the lights mounted on the bar [this light also was bounced off the ceiling]. The fill-in lights were positioned to give a ratio of about 3:1. The combined lighting from the mainlight, accent lights, and fills had to be adjusted so it didn't overpower the lights on the theater marquee and above the posters.

The smaller spots and floods set low on the floor were the last to be positioned. They were used to put additional strong highlights on the cars. Beattie put colored gels on some of these to add touches of color where he wanted it.

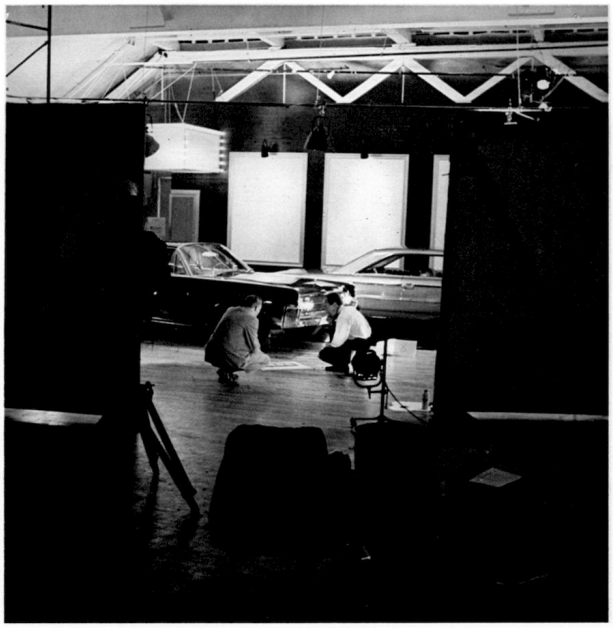
On the floor under and around the cars are sheets of fiberboard, painted black, waxed, and polished. They will look like wet, gleaming pavement in the picture and can be arranged to throw *dark* reflections on the shiny surfaces of a car. Arrange them just as carefully as your spotlights, but be sure they don't "kill" desirable highlights on significant details, such as the chrome of a grille.



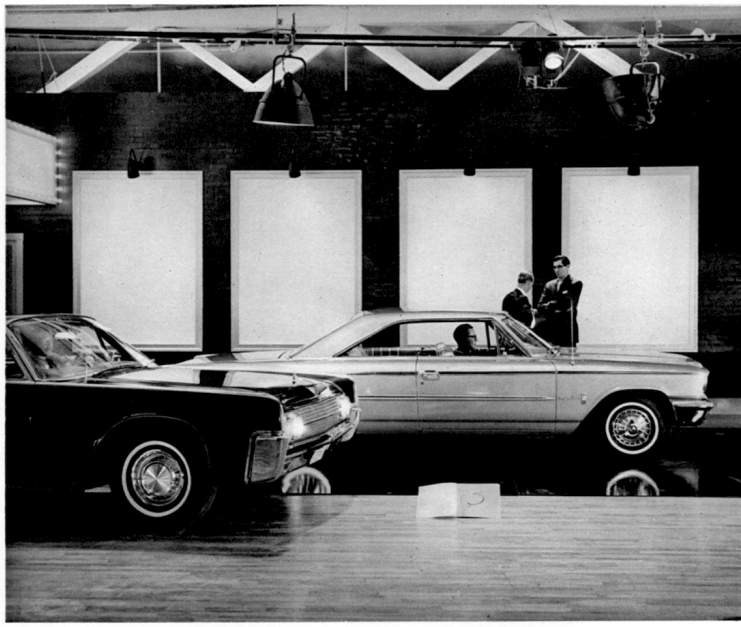
6 Using colored gels: In this picture Beattie is taping a sheet of red gel to the front of one of his spotlights to suggest the presence of a traffic light just off camera. Review the directions for using colored gels in the lesson on industrial photography. Don't overdo colored lighting–it can draw attention away from the product.



7 "Killing" undesirable highlights: Getting reflections exactly as you want them is a tricky business when your subject has many shiny surfaces. Sometimes lights alone won't do it. To subdue or "kill" an unwanted highlight you can use *dulling spray*, as Beattie is doing here. Hold a sheet of cardboard close to the surface you want to dull –the cardboard will prevent spray from falling on nearby surfaces. Direct the spray at the cardboard and move the spray until its fine, misty edge begins to cover the surface you want dulled. Apply the spray in short bursts and stop when the highlight is dulled enough.



8 Screening the camera: Two large flats [seen here from camera position] performed two valuable jobs. First, their white-painted front surfaces bounced additional light into the set. Second, they shielded the photographer's camera from stray light and reduced the danger of flare. They were moved as close together as possible without blocking the camera's angle of view. Although you may be using a well-designed lens shade, it's a good idea to protect your camera like this when photographing a set where a lot of light is bouncing around. Even if you don't get noticeable flare, stray light can reduce the contrast and sharpness of your picture.



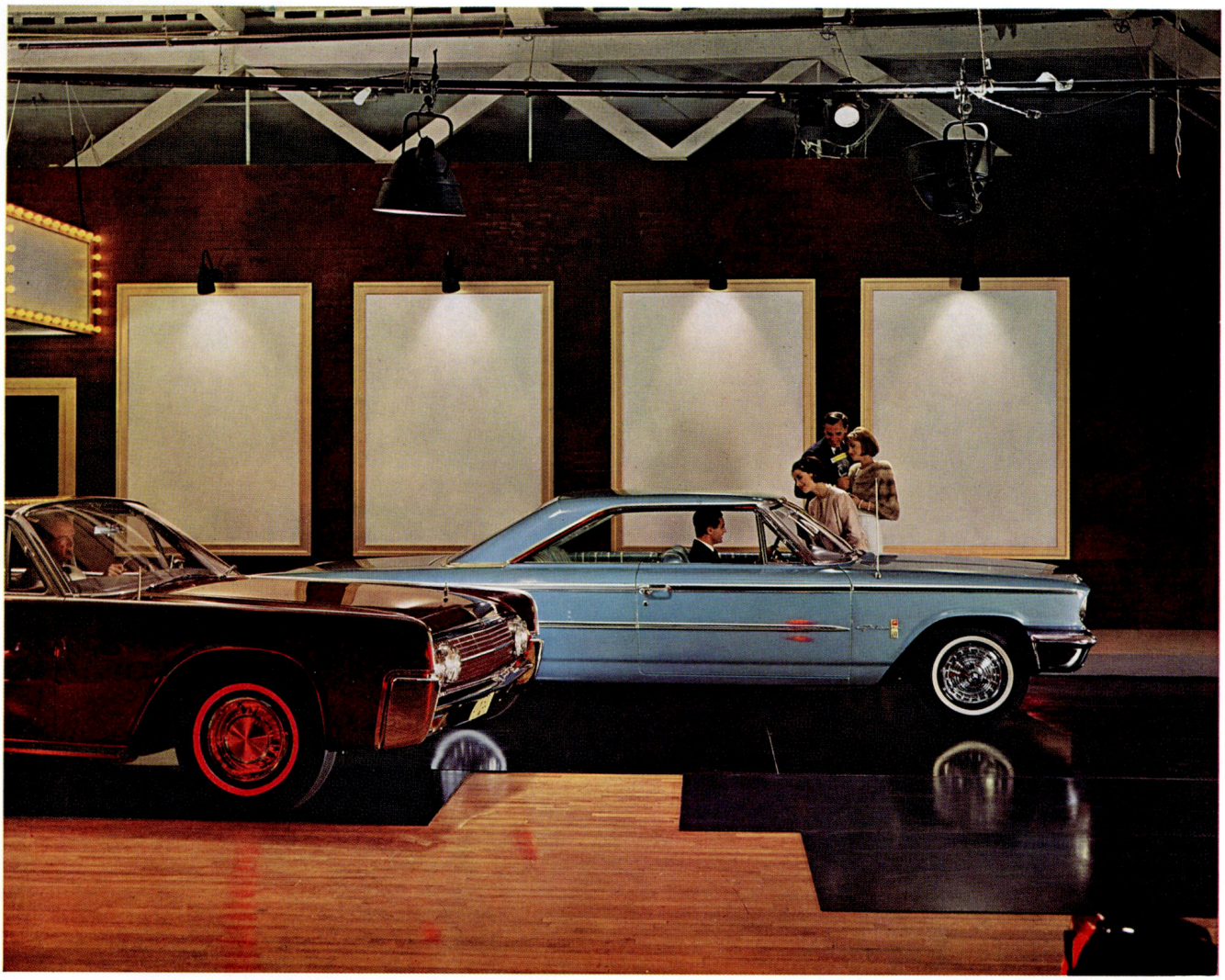
9 Making test shots: Now Beattie is ready to make lighting and exposure test shots. With the number and complexity of lights involved in a large setup, testing is essential. Everything must be perfect before the models arrive and the final shooting begins. Beattie worked out his lighting and bracketed test shots on color film the day before the final shooting, then sent them out for processing. He would see the results the next day, before his shooting began, and could make any adjustments necessary. With so many thousands of dollars in rentals, model fees, set construction, etc., involved, nothing must be left to chance.

One of his test shots is reproduced in black and white above. It showed him that his basic lighting setup, exposure, and composition were what he wanted. His models were stand-ins.

10 Choosing models and costumes: Here Beattie is coaching one of the girls just before the shooting begins. Five models were required–a man at the steering wheel of the nearer car, a couple in the front of the second car, and another couple standing and talking in the background. The people had to be young, attractive, well dressed, and obviously enjoying themselves. They would play a vital role in creating the atmosphere of fun and excitement the "new theater season" theme of the picture called for. On the other hand, they couldn't look *too* elegant and sophisticated because the client wanted the ad to appeal to people of moderate means. This is the kind of tightrope walking that calls for your best taste and judgment. In advertising work, it's often important that the agency and its client approve of your choice of models and costumes *before* you shoot the final picture.

11 Working with the models: During the shooting of the final picture, Beattie was free to concentrate his full attention on getting the best poses and expressions from his models. This is the unpredictable, human aspect of any shooting.

It usually takes a few shots before professional models warm up. Beattie made frequent suggestions during the shooting, trying slight variations in pose and expression. [The basic positions of the figures were predetermined by the agency.] Here, for example, he is suggesting that the girl turn her head as he shoots. This would cause slight motion blur at the slow shutter speed he was using, but he felt this might add a touch of realism and spontaneity. He made other shots without movement, too. Throughout the shooting he tried to get his models into the spirit of the scene–to laugh and enjoy themselves.



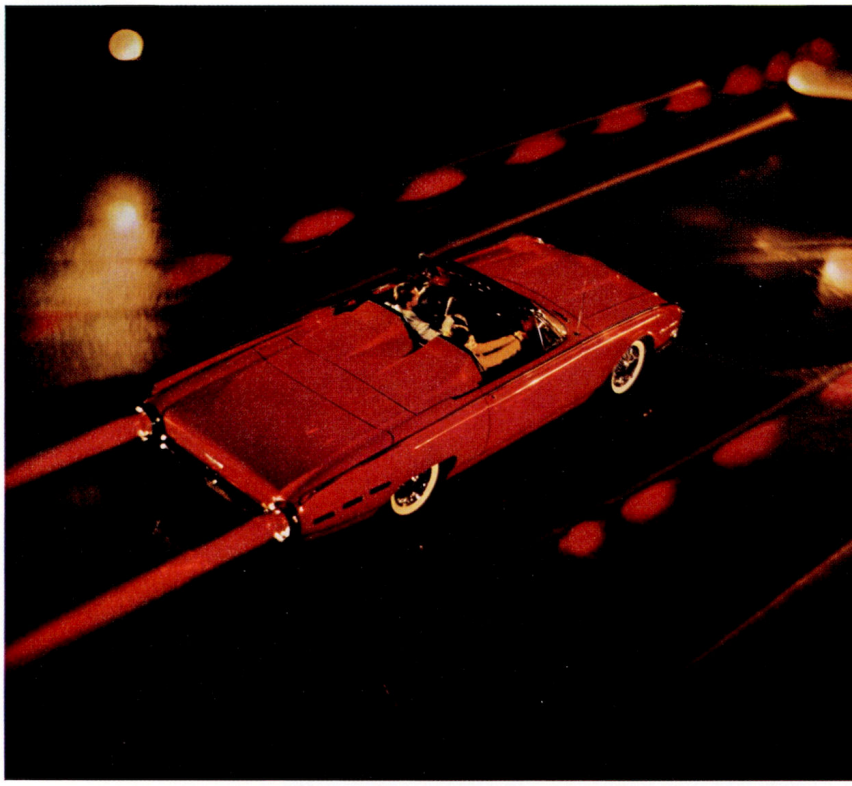
Here, reproduced full frame, is one of the color pictures Beattie got from the final shooting. His exposure, on a Type B color transparency film, was for 1 1/2 seconds at *f*/22—a small enough aperture to give him sharpness from front to back. He exposed about twenty pictures, recording slight variations in the poses, positions, and expressions of the models, and in the use of colored accent lights, to give the client a wide choice.

Notice carefully the lighting on the cars. Not only the sides, but also the top surfaces, are well illuminated. Don't neglect the tops of large objects. You will need to mount lights high up to illuminate them, as Beattie did with his high spotlights, which are visible above the background wall. Strong highlights on the chrome trim emphasize the sleek lines of the cars, but the photographer angled his lights so they didn't cause harsh hot spots. The red reflections were produced by colored gels used on low spotlights.

This picture also clearly shows the effect created by the waxed black floor panels. See how they pick up reflections of the cars the way a wet pavement might. At the same time they prevent the shiny sides of the cars from reflecting the light floorboards of the studio and spoiling the illusion that this is an outdoor shot. Beattie did not put a black panel directly in front of the grille of the nearer car because he knew from the layout that type was going into this area.

The photograph emphasizes the lines, colors, and sleekness of the two cars. When cropped for the ad, with extraneous details on the top and bottom of the picture area removed, it gives a colorful illusion of a scene outside a theater. [A black-and-white version of the ad is reproduced below.] The glittering lights and reflections, the touches of red and yellow, the clothes and vivacious expressions of the models all contribute to the mood of excitement and gaiety. This is another good illustration of the basic rule of advertising photography: Every element in your picture must contribute to the desired effect. [Courtesy Ford Division, Ford Motor Co.]

Automobiles in motion



Some automobile ads call for the vehicle to be shown in motion, in a picture that emphasizes speed or power. For a daylight photograph, you might use a relatively slow shutter to catch motion blur. At night, multiple exposures on the same film frame can produce dramatic effects, as demonstrated in this exciting color photograph by Beattie.

To dramatize the bright red convertible, the photographer followed this procedure. First, he arranged to use the car manufacturer's testing ground. He positioned his 8x10 view camera in an observation tower to get the high viewpoint he needed to show the car from the top.

He arranged the location of the car by studying the groundglass and giving directions to assistants below until it was positioned as you see it. This spot was marked on the pavement. Beattie also marked with grease pencil on his groundglass the area which the image of the car would cover.

The actual shooting, made after dark, involved multiple exposures. Beattie had the black macadam surface of the roadway sprayed with water so it would glisten and pick up reflections. With lights on, the convertible was driven to the mark on the pavement. A time exposure recorded the tail lights as red streaks. A second exposure, with electronic flash, recorded the car in sharp, well-lighted detail. Then Beattie made additional time exposures while the car was driven back and forth, to register streaks and blobs of light. [The rows of red lights were achieved by having the car drive past with the turn indicator blinking.]

Automobile interiors

In taking pictures for automobile ads, sometimes your assignment may call for detail shots of the car's interior. Your problem then is to find an angle that gives you an uncluttered view, and to devise ways to make it look interesting. If your purpose is to show attractive upholstery, an unusual dashboard, or some other design feature, using a model for human interest might block too much of the detail you want to show. A better solution may be to use a story-telling prop, as Beattie did in these pictures.

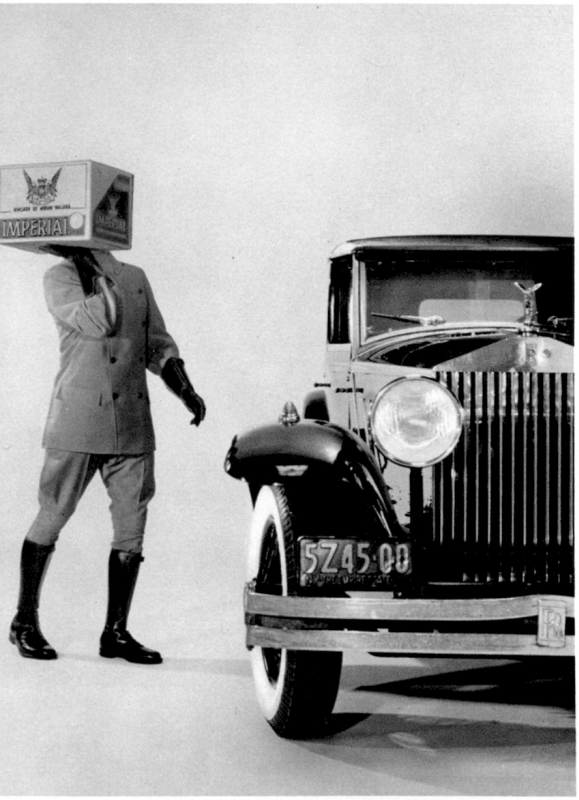
A yellow rain hat provides pleasing contrast with the blue interior of this automobile. The photographer sprayed glycerine on the outside of the window to simulate raindrops, then dramatically lighted the subject with an electronic-flash unit outside the rear window. Glycerine is better than water for this purpose because it forms sticky drops that don't run off so quickly. To emphasize the drops, shine light through them, as was done here.

Shooting straight down on the seat of a convertible gave a clear, interesting view of its shiny red upholstery, sharply lighted by electronic flash. A newspaper and a pair of glasses add human interest. [All photographs courtesy Ford Division, Ford Motor Co.]

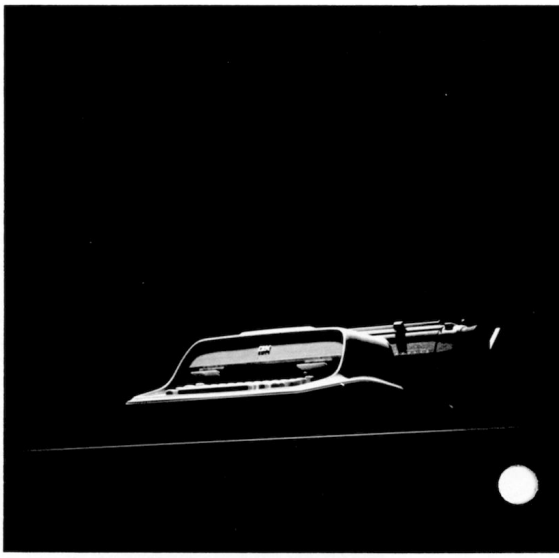
The wide range of advertising photography

On these pages we show you a number of advertising photographs from around the country–including pictures from national ads in general magazines, local ads in newspapers, and ads in specialized publications. They illustrate the variety and vitality of photography in advertising, and suggest ideas you may find stimulating and helpful. As you study each picture, notice the imaginative but often very simple means the photographers used to communicate the advertising message in a striking photographic image.

In advertising, picture and headline must work together. This picture, photographed by Max Yavno, was printed next to the headline: "This plant thinks it's on the moon," to illustrate an ad for a company engaged in space research. Rather than show a space chamber or other hardware, the client wanted an imaginative, indirect interpretation–one that was intriguing and mysterious. It was decided to show a plant grown under experimental conditions in a space chamber. The backlighting from a single spotlight glows eerily through the plant's leaves. The moon in the background was printed from a separate negative.

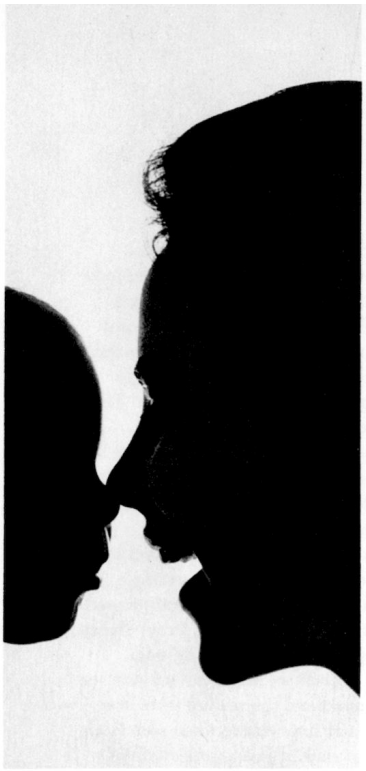


To convey the idea that distinguished people buy a particular brand of whiskey, and buy it by the case, photographer Stephen Heiser staged this amusing scene for an ad in a sophisticated national magazine. He attached white paper to the walls of a garage to give a light, uncluttered background. We see just enough of the car to recognize it as a Rolls-Royce. An eye-catching comic touch is the pose of the chauffeur. The cardboard case, at first glance, almost seems to be his head.
[Courtesy Foote, Cone & Belding; Hiram Walker, Inc.]

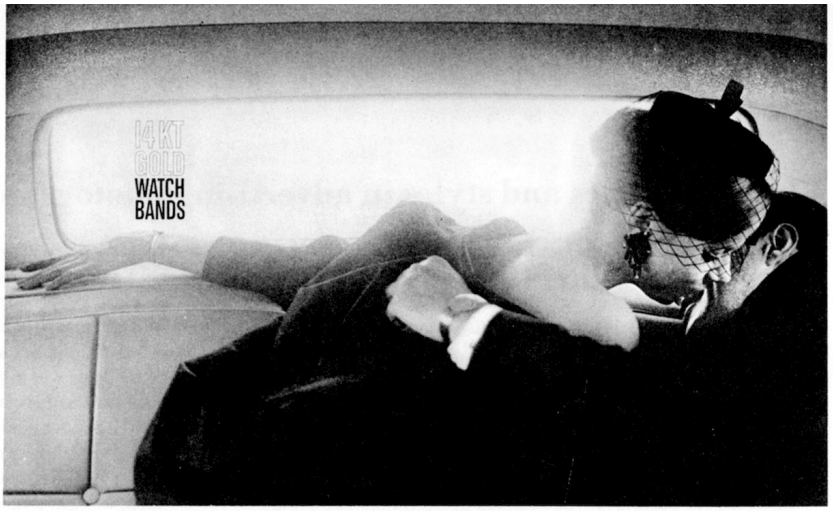


When you show a product alone, without accessories or adornment, you need to dramatize it by composition, camera angle, and lighting. In this photograph for an electric typewriter ad, Stephen Colhoun gave dignity and importance to the machine by the predominantly low-key lighting, by isolating the machine with dark space, and by shooting up from a low camera angle. The stark overhead lighting highlights the graceful contours of the product so that the picture ties in with the copy headline, which warns the reader, "Don't be swayed by its beauty."
[Courtesy IBM]

The photographer created this amusing close-up to display a new toothpaste package prominently and also get across the message that the product tastes good. The little girl licking her lips as if in anticipation is an appealing story-telling image. The toothbrush in her hand tells us she is about to brush her teeth–a touch that sharpens the point of the picture. Relatively flat frontlighting was chosen so that strong shadows wouldn't obscure the design and lettering of the package.
[Photograph by Jofee, Studio Associates, courtesy Bristol-Myers Co.]



This intriguing silhouette of a mother and child in close-up was used by a life insurance company for an advertisement designed to interest mothers. Rather than show a well-lighted conventional pose, the photographer illuminated his subjects by bouncelight from behind and exposed for just a little detail in the shadows. The happy smile on the mother's face–clearly evident even in silhouette–and the touching noses make this a fresh and charming picture with strong appeal for the intended audience.
[Edward Bishop Studios, Boston, courtesy New England Life]



The realism of natural light sometimes strikes just the right note for an advertising photograph. This picture, taken by Jerrold Schatzberg for a manufacturer of gold watchbands, was photographed by diffused daylight coming through the back window of a taxicab. Although it seems to be a candid picture of lovers in an embrace, notice the two arms and their watchbands. The models were carefully posed so that the bands would be in prominent positions–one of them against the blank window, where type was added right over the band in the finished ad.
[Courtesy The Zlowe Co., Inc.]

"Colder tomorrow?" was the headline used with this photograph for a hot breakfast cereal advertisement. The huddled pose of the little girl, her streaming hair, and the way her hat is pulled down almost over her eyes expresses cold in a vivid, amusing manner. Remember, often the best way to convey an abstract quality in pictures is to show its effect on a person.
[Courtesy Special Products Div., National Biscuit Co.]

Here's another good example of a product shown in action. Photographer Merle Morris chose a high angle to show a power mower equipped with a suction device and bag to pick up grass clippings. The neat, closely clipped grass around the uncut circle dramatizes the mower's efficiency. Notice that the brand name appears clearly on the white bag as well as twice on the mower itself. Strong "product identification," as this is called, often is required in direct, hard-selling advertising photographs.
[Courtesy Toro Manufacturing Corp.]

The photographer's assignment here was to shoot a picture for a full-page newspaper ad illustrating the idea that "Detroiters can hardly make a move" that doesn't involve the advertiser, a large local department store. The little girl with her pony tail and delightful pose is the center of interest, of course. Notice how effectively the photographer has arranged his props–they concretely suggest the clutter of moving, yet they make a well-organized composition that centers around the girl. Packing boxes bearing the name of the department store are prominently displayed.
[Courtesy J. L. Hudson Co., Detroit, Michigan]

Changing tastes and styles in advertising photography

The most successful advertising photographer is the one who keeps abreast of–or even a little ahead of–current trends in taste and style. These trends can change quickly and markedly so a flexible outlook and versatile skills are important assets if you wish to succeed in advertising photography. One client may want a straightforward, brightly lighted, razor-sharp picture of his product. Another may ask for a realistic, documentary type of picture taken with available light and a 35-mm camera. Still another may want some offbeat effect–motion blur, unusual color, distorted perspective, etc.–to attract attention.

Make it your business to see what top professionals are doing. Study the national ads that appear in major newspapers and magazines, and on billboards and car cards. If you are interested in shooting ads for smaller, specialized publications [often a good way to get started in the business], look at trade magazines, house organs, mail-order brochures, etc., that service the fields that appeal to you. Much imaginative advertising photography is done for smaller publications, such as those in the drug, medical-supply, chemical, and electronics industries.

Clip the best of these ads and file them for study and as a source of ideas you can adapt to your own work. Analyze them carefully. Ask yourself questions like these: What visual means did the photographer use to get across the client's message? How did his choice of models, props, background, or set help create a mood or tell a story? What lighting did he use and why? Were any unusual photographic techniques employed to give the picture greater impact? How are color and composition used to emphasize the product and make it look desirable? This kind of close scrutiny of current work can do much to stimulate your imagination and sharpen your thinking.

Sometimes a bold innovator comes along with a novel idea that takes the advertising world by storm. For example, Irving Penn established a new trend with his simple, dramatic close-ups of Jello products. His photographs soon were widely followed by other advertisers. Bert Stern created a much-imitated type of picture with his view of a cocktail glass seen against an out-of-focus Egyptian setting. Other advertisements quickly appeared showing a product with an exotic or incongruous background.

However, novel treatments quickly lose their freshness because of the host of imitators, and a particular type of picture may go out of style as abruptly as it came in. Therefore, a creative photographer will not be content just to tag along after others but will continually search for new ways of carrying out his assignments.

To help you find such ways, here is a checklist of ideas. These do not exhaust all the possibilities, of course, but they do suggest good approaches for getting freshness and originality into your advertising pictures.

Try a photojournalistic approach: Sometimes a real housewife photographed in her own kitchen or a real secretary in her office will make a far more convincing picture than any situation you could set up with a model. Consider the advantages of getting a candid, spontaneous effect with a small camera and available light.

Look for striking symbols: Can you find good ways of symbolizing qualities of the product or service you are photographing? A sparkling waterfall can suggest the cool, refreshing taste of a summer drink; a baby's hand clutching the finger of an adult can express the dependency of childhood; streaks of light can say speed and movement. Look for symbols that are quickly recognizable and evoke a favorable emotional response in the viewer.

Relate the subject to its background interestingly: Choose a background that tells a story, puts the product in a suitable setting, or attracts attention because it is so unexpected. Use your knowledge of camera and lighting techniques to keep a background from attracting too much attention. Selective focus on the subject is just one good method. You might also light the product more strongly, make it stand out by color or value contrast, or place it in such a prominent position it can't be missed.

Create rhythm by repeating a product: Sometimes you can make a more meaningful picture by using a number of similar objects arranged in an interesting pattern. You can get variety by showing some of them close to the camera and large, and others farther away and small. You might focus sharply on one, and record the others less distinctly or you might vary the lighting.

Put the product in a story-telling situation with people: The possibilities here are practically endless. As we've demonstrated, depending on the models you select, you can create a situation that has very broad interest or that is designed to appeal to a particular group –men, women, a special age group, etc. Perhaps a humorous situation or a very dramatic one is appropriate for your purpose.

Use contrasts for drama: Often you can dramatize a product by playing it off against something that contrasts with it–for example, you might show fur with a beautiful texture against a perfectly smooth background; a bright red car against dark green foliage; or an object with a simple form against ornate objects or a busy background.

Find an unusual camera angle: Objects we are accustomed to see head on or from the side can look unusual and interesting when seen from above; large objects assume greater importance when seen from a low angle; sometimes a very close-up view of just a portion of an object can tell your story vividly and well. Thoroughly explore the various types of camera angles before you shoot.

Use your camera controls to interpret: Aperture, focusing, and shutter speed controls can help you interpret your subject. Should you stop all the motion, use partial motion blur or extreme motion blur? Do you want everything sharp from near to far, or would it be better to focus selectively on just a part of the subject?

Use a long or wide-angle lens: Perhaps the telephoto and space-flattening effects of a long lens can create a better picture for you. Or perhaps you should move in close with a wide-angle lens and emphasize nearby objects.

Find an imaginative way to use lighting: You can give lighting a key role in any advertising picture by using it to create mood as well as to reveal the strong points of the product. Dramatic backlighting, silhouettes and semisilhouettes, soft and gentle lighting, lighting that makes a shiny product or glassware glisten, lighting that flatters the face of a model–these are just a few of the possible choices.

Use unusual color: Some of the best advertising photographs use color in an *interpretive* way. With many products, of course, you may be required to show the actual hues of the object as accurately as possible. But often you may be able to employ color more freely, to evoke mood or create an unusual and beautiful composition. Your choice of props, background, and clothing offers one way to achieve this. Using a cool or warm light source, placing colored gels over your lights, deliberately mismatching film and light source, using filters during exposure or printing–these all provide further controls.

In adapting these or any other ideas to an advertising assignment, keep the purpose of the picture clearly in mind. Don't choose an approach or technique just because it's unusual–*it must help you get the advertising message across*, and it must meet with the approval of the client or his representatives. Layout and reproduction requirements may also place restrictions on the advertising photographer. Yet, within these limits, this field offers great scope for imagination and creative thinking. More than many other areas of photography it can call for all your skills and insights, your knowledge and ingenuity, giving you an important and highly rewarding goal toward which to direct them.

Technical notes on the photographs

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Richard Beattie; 8x10 Deardorff with a 305-mm *f*/4.8 soft-focus lens; Ektachrome Daylight Type film; 1/25 second at *f*/11; daylight.

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Irving Penn; 8x10 Deardorff with a 10-inch lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/90; electronic flash.

Page 4
Irving Penn; Leica with a 50-mm lens; color-negative film; 1 second at *f*/11; floodlights.

Page 5
Richard Beattie; 4x5 Deardorff with an 8¼-inch *f*/4.5 lens; Ektachrome Daylight Type film; 1/50 second at *f*/22; daylight only for background; daylight plus fill-in flash for face.

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Irving Penn; Hasselblad 1000F with a 135-mm lens; Ektachrome Type B film; 1/25 second at *f*/9; floodlights.

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Richard Beattie; 8x10 Deardorff with a 12-inch *f*/6.8 lens; Ektachrome Daylight Type film; 1/50 second at *f*/22; daylight.

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Bert Stern; Hasselblad 1000F with an 80-mm *f*/2.8 lens; Ektachrome II film; 2 seconds at *f*/22; late afternoon sunlight.

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Richard Beattie; 4x5 Deardorff with an 8¼-inch *f*/4.5 lens; Ektachrome Daylight Type film; 1/50 second at *f*/11; daylight.

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Bert Stern; 8x10 Deardorff with a 12-inch lens; Anscochrome Daylight Type film; 2 seconds at *f*/32; daylight from skylight plus lighted sign.

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Richard Beattie; 8x10 Deardorff with a 14-inch *f*/6.3 lens; Super-XX film; 1/50 second at *f*/32; daylight.

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Bert Stern; Rolleiflex with a 75-mm *f*/3.5 lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/8; electronic flash.

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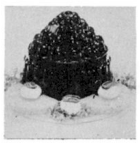
Irving Penn; 8x10 Deardorff with a 10-inch lens; Anscochrome Daylight Type film; exposure for electronic flash at *f*/90; electronic flash.



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Richard Beattie; 8x10 Deardorff with a 12-inch lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/32; electronic flash.

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Richard Beattie; 8x10 Deardorff with a 14-inch lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/22; electronic flash.

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Richard Beattie; 8x10 Deardorff with a 14-inch lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/22; electronic flash.

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Richard Beattie; 8x10 Deardorff with a 14-inch lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/32; electronic flash.

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Richard Beattie; 8x10 Deardorff with a 14-inch lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/32; electronic flash.

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Richard Beattie; Hasselblad with an 80-mm *f*/2.8 lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/16; electronic flash.

Page 29
Richard Beattie; Hasselblad with an 80-mm *f*/2.8 lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/16; electronic flash.

Page 30
Max Yavno; 4x5 view camera with a 19-inch lens; data on film and exposure not available; moon in background was printed from another negative, cut out, and pasted down on the background; spotlight.

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Stephen Heiser; 8x10 Deardorff with a 12-inch lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/16; electronic flash.

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George Miles Ryan; Rolleiflex with an 80-mm *f*/2.8 lens; Tri-X film; 1/100 second at *f*/5.6; bounced floodlight; taken in studio with large photograph as background and a fan to create wind effect.

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George Kawamoto; Hasselblad 1000F with an 80-mm *f*/2.8 lens; Tri-X Pan film; 1/50 second at *f*/8; floodlights.

Famous Photographers Course
Famous Photographers School, Inc., Westport, Connecticut

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Lesson

20

Experiments in creative photography

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4 Imaginative seeing
6 Unusual posing
8 Unusual effects with wide-angle lenses
10 Imaginative ways to use motion blur
12 Multiple exposures
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20 Applying the techniques

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Breaking through the commonplace

Our basic purpose in this lesson is to give your imagination a nudge –to open your eyes to some unusual ways of seeing and making pictures. We'll demonstrate special techniques your Faculty and other photographers use to create photographs that are different–motion blur, multiple exposure, controlled distortion, special darkroom methods, and many other techniques. If you feel your photography is in a rut, and that you're always taking the same pictures in the same way, this lesson can open up new, exciting possibilities for you.

As a photographer, you grow by experimenting. You should be keenly interested in trying new approaches, new techniques, and unorthodox procedures for a number of good reasons.

One is simply that experimenting is fun–it ranks high among the most enjoyable and fascinating aspects of photography. Also, an experimental attitude stimulates creativity by leading you to see things in a fresh way, and to develop novel techniques to express your ideas in pictures. Of course, you must be open-minded–receptive to new thoughts and willing to follow them up. An experience of Richard Avedon's provides an example of what we mean. Avedon once was riding in a cab on a rainy day. Taking off his glasses to clean them [he is nearsighted], he was struck by the beauty of the blurred lights and reflections he saw around him. This gave him the idea of experimenting with out-of-focus backgrounds in his fashion photography and led him to create many striking effects.

From a professional standpoint, willingness to experiment is a desirable–even necessary–quality. In most fields of photography the new, the unique, and the unusual are in demand. Only by experimenting are you likely to generate the ideas and devise the effects needed to keep your work fresh. We've tried to instill this inquisitive, experimental attitude in all your training since the first lesson, but here we will give it special emphasis.

Experiments in seeing

The most fruitful way for a photographer to experiment is with his manner of looking at the world. What unexpected qualities can you find in your subject? Can you discover beauty where most people fail to see it? Can you lay bare fresh meaning in the commonplace? Don't be satisfied with a routine, stock approach. Look harder, dig deeper, see more perceptively.

You might try one of Bert Stern's approaches for finding and creating unusual pictures. He often likes to "stand things on their head." That is, he sometimes deliberately chooses the direct opposite of the usual way of doing something. Thus, you might try photographing from behind a subject that usually is seen from the front, or record in silhouette a subject that usually is shown in detail.

The way you see also is expressed in the way you compose and crop a picture, and there is room for interesting experiments here, too. Irving Penn, for example, often breaks usually accepted "rules" of composition to create visual tension and attract the viewer's eye. He may crop off a vital part of the subject, crowd something close to the picture's border, distort the perspective, magnify something small, or greatly reduce the size of something big. "Anything that breaks through the commonplace can be valuable," he says.

Experimental techniques

The tools, materials, and methods of photography lend themselves to experimenting, too, as we'll demonstrate. The possibilities are limited only by your imagination and ingenuity. You can manipulate practically any step in the photographic process to obtain unusual effects. To take just a single example, a basically simple technique like putting more than one exposure on a sheet of film is capable of complex and fascinating variations. It can be used to record multiple images of a moving subject, to superimpose different images for symbolic or story-telling effects, to make a composite whole out of two separate pictures, or to repeat one subject many times over in a pattern. In a similar way, most of the methods we'll teach you here can be adapted to a great variety of purposes if you apply a little ingenuity.

However, before going into these methods in detail, some commonsense words of caution are in order.

First, don't use an unusual method or offbeat effect just for its own sake. Pointless tricks or gimmicks seldom produce good pictures. *Use an unusual method only if it helps you express your picture idea more clearly and vividly.*

A second point is this: *Experimenting should be done at your own risk.* If you are in a situation where other people's money is at stake, or the pictures can't be retaken, first cover yourself by taking a straight shot that you know will be acceptable to your client. Then, if you have time, do your experimenting with a new technique or approach.

Naturally, you enjoy the greatest freedom to explore and experiment when you work on personal picture-taking projects. Most good professionals have one or more going all the time. *These projects often generate ideas and methods that can be applied to an assignment later on*–and sometimes a project begun just for fun turns out to be very valuable in terms of prestige or pay. For instance, Alfred Eisenstaedt took pictures purely for his own enjoyment every summer for many years during his annual vacation on Martha's Vineyard. He didn't intend these pictures for publication when he shot them–but they were so interesting and unusual that *Life* ran a selection in a major picture essay.

Since its very beginning, photography has been in a continual ferment of change and experimentation. Every technical improvement in cameras, lenses, film, and lighting equipment extends the scope of photography's vision and opens new possibilities of communicating with pictures. These changes are still going on, and at an even more rapid pace than ever before. This is one reason why photography is such a challenging and exciting medium. In a real sense, you have a chance to be a pioneer. So don't be timid about trying new approaches or unfamiliar methods, or about looking for new ways to use familiar tools and techniques. Cultivate the healthy urge to experiment. Out of it can come increased mastery of the medium and some of your best pictures.

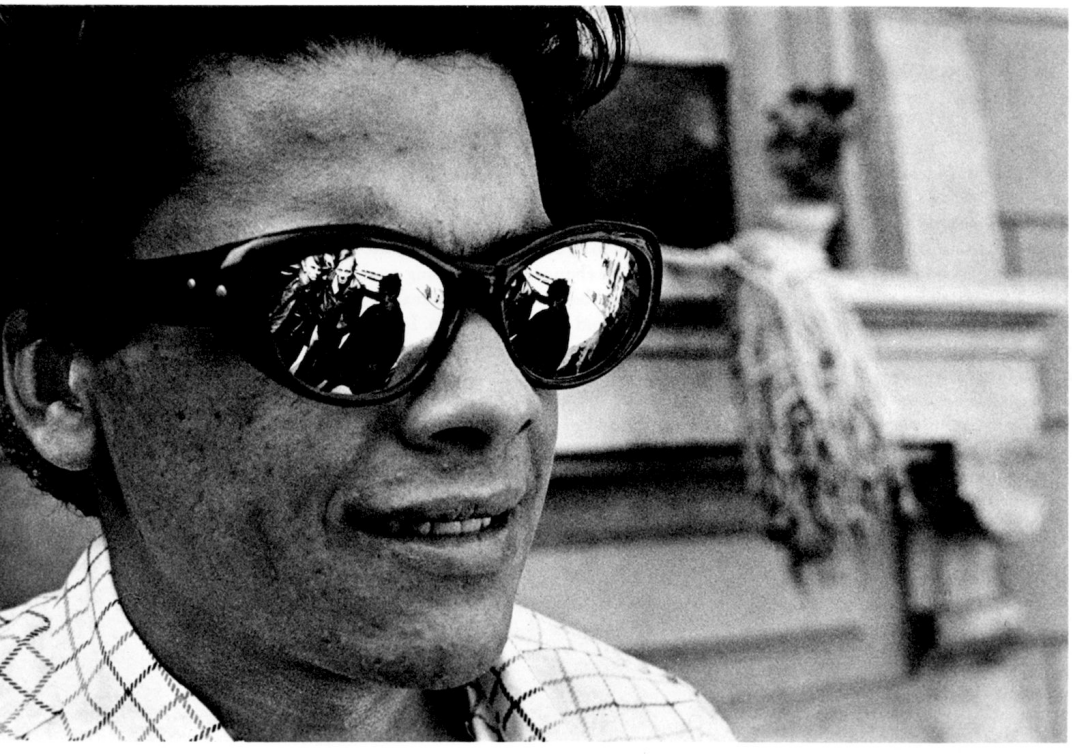
A camera is not only a device for recording reality in a literal way–it also is capable of interpreting, distorting, and intensifying. Irving Penn's soft-focus photograph of a mother and child, for example, is not intended to show us the subject in realistic detail but to suggest the softness, gentleness, and magical quality of motherhood. To achieve this effect, Penn used an unconventional method–he deliberately threw the image out of focus.
[Courtesy *Vogue*, ©1956, Condé Nast Publications, Inc.]

Imaginative seeing

To begin our exploration of the unusual and the experimental in photography, we want to emphasize a basic point: You can produce imaginative pictures with the simplest of techniques *–provided you have the ability to see things in an uncommon way.* It's important to learn the methods we demonstrate in this lesson, but it's even more important for you to continue your training in imaginative seeing. Try to break away from looking at things in a routine way when you consider a potential picture subject. To see beyond the obvious, you must adopt a questioning, searching attitude. What details, angles, textures, play of light and shadow, patterns of motion, and arrangement of shapes intrigue your eye or stir your emotions? What is significant or interesting or expressive about your subject as you see it? How can you capture this in your picture so the viewer will also see it? This kind of sensitive response to the world around you is essential to create pictures with a fresh point of view. For some good applications of imaginative seeing, study these photographs.

Look for reflections

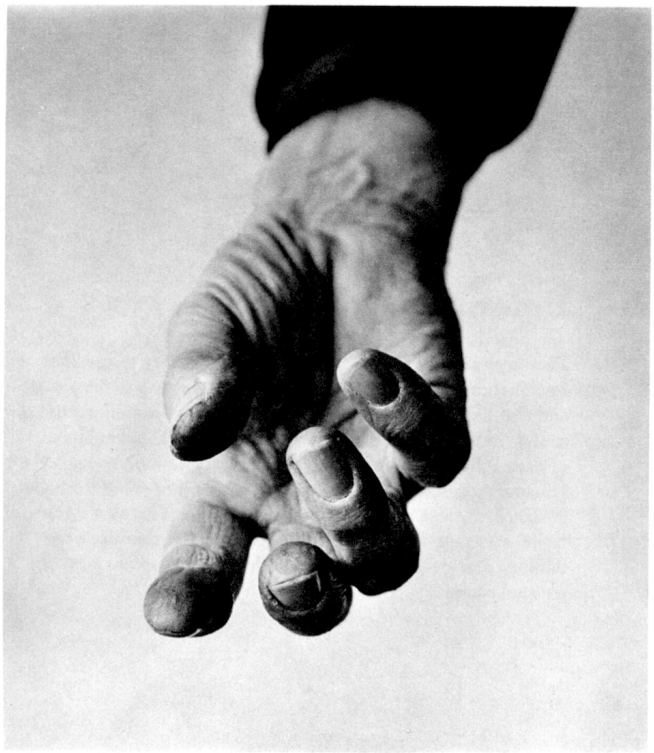
Thousands of people pass this New York skyscraper every day without a glance or at best only a cursory look. But Alfred Eisenstaedt, assigned to photograph his personal impressions of Manhattan, noticed the building's reflection in a store window and shot this intriguing double view. Breaking the "rule" about not splitting a picture down the middle, he balanced off the reality [at right] with its image [at left]. The steeply converging lines distort the perspective but aid the photographer by emphasizing the towering height of the building, and the woman passerby contributes a touch of human interest. [Courtesy *Life* magazine, ©Time, Inc.]



Sometimes reflections can help tell your story, as they did for Bert Stern in this photograph. It was made while the photographer was shooting a picture coverage of the movie *Matter of Conviction* on location. Stern wanted an unusual group shot of four of the characters in the film. He noticed three of the actors reflected in the dark glasses of a fourth, found an angle that silhouetted them against the sky, and shot. The director liked the picture so much he later used the same technique in a scene in the movie.

Look for striking details—and show them close up

Irving Penn shot this startling close-up as a literal expression of the phrase "We'll put a bug in your ear," to lead off a magazine feature about new fashion ideas. The combination of the real [but dead] bug and the ear makes an instantly eye-catching photograph when seen in this large detail.
[Courtesy *Vogue*, ©1959, Condé Nast Publications, Inc.]



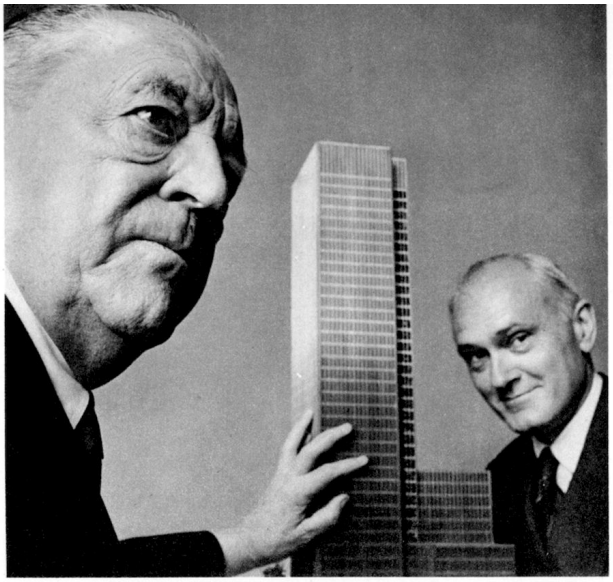
Watch for the possibility of good extreme close-ups while you're shooting. For example, during a portrait session with sculptor Henry Moore, Richard Avedon first took some more or less conventional head-and-shoulders shots. As the two men were conversing, Avedon noticed the power and expressiveness of Moore's hands. Using a close-up lens on a twin-lens reflex, Avedon shot this dramatic close-up. Strong lighting models the hand, making it look both massive and dynamic, like the sculptor's work itself. The photographer later felt this was the most successful "portrait" of the entire session.
[Courtesy *Harper's Bazaar*]

Bert Stern's purpose in this picture was to emphasize an extravagant style of eye makeup. Rather than show the entire face, he focused attention on one eye. However, he also included just enough of the hair, cheek, and nose so that an observant viewer would recognize his model, actress Elizabeth Taylor.

Harry Garfield noticed this oddly shaped tree stump in his backyard and was struck by its amusing resemblance to an animal. To strengthen the similarity, he shot it close up from a low angle that outlines it against the sky. Because the composition looked a little empty, he attached some leaves to the stump, adding an interesting variety of shapes and another texture.

Unusual posing

The way you pose people offers you a good chance to use your imagination. An unusual pose can attract attention to the picture and also help tell your story. For example, in a fashion picture of sports clothes, you might show your subject in a striking moment of peak action, in an industrial picture story you might catch the graceful movements of workers in poses reminiscent of the ballet or dance, or for a comic effect you might have a naturally graceful model assume a deliberately awkward pose. To stimulate your thinking along these lines, here are three effective examples of unusual posing.



Unusual poses sometimes provide you with a good, vivid way to get your picture idea across. Here, for example, Irving Penn indicates the relationship of two architects to a new building by the way he's posed them. Dominating in the foreground is the building's chief architect, Ludwig Mies van der Rohe, while his associate, Philip Johnson, is shown in smaller scale on the right. In between is a model of their project, the Seagram Building. The low camera angle adds importance to the men and makes the model seem taller.
[Courtesy *Vogue*, ©1955, Condé Nast Publications, Inc.]

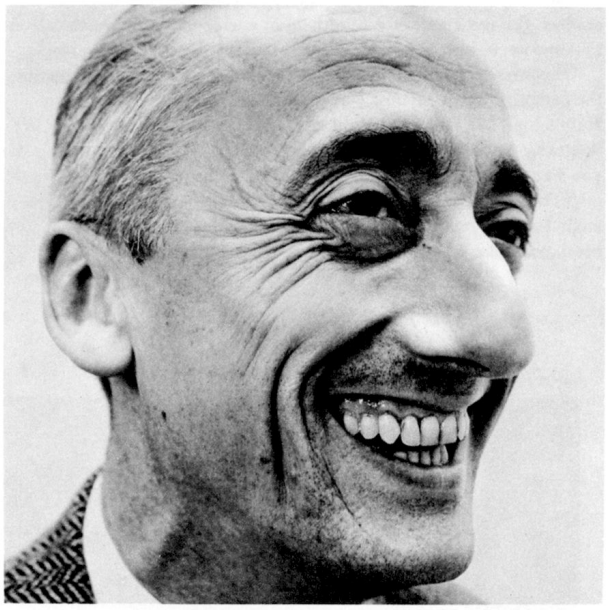
Penn put two flats together in his studio to make this odd-looking narrow corner into which playwright Noel Coward has crammed himself in a rigidly stylized pose. The turned head with its slightly apprehensive expression strikes a provocative note. Penn has shot a number of celebrities in a similar corner, finding it interesting to see the subtle differences in pose and expression between individuals when placed in these restricted surroundings.
[Courtesy *Vogue*, Condé Nast Publications, Inc., ©1960, Irving Penn]

One purpose of an editorial illustration is to catch the reader's attention, to make him stop, look, and read. Bert Stern's picture of dancer Cyd Charisse does this by the device of showing her looking from between her lovely legs at a camera. This dynamic, offbeat pose is reinforced by her animated expression. A viewer can scarcely fail to notice the legs. Apparently bare, they actually are clad in seamless hose –the fashion point of the picture. Thus the pose works two ways–to attract attention and emphasize a key detail.
[Courtesy *Vogue*, ©1963, Condé Nast Publications, Inc.]

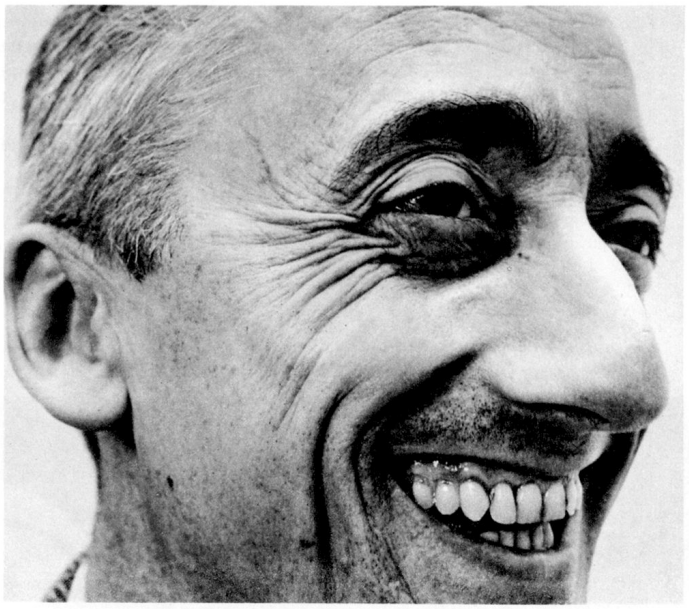
Cropping portraits for effect

Cropping a client's portrait that is going to hang in his home and be looked at by friends and family is one thing. Most people tend to be conservative in their taste, and won't respond favorably to extreme or unusual cropping in a portrait. Cropping a portrait for editorial or advertising use can be quite a different matter. Here you might well experiment with unusual and extreme treatments. Even if the cropping seems to violate generally accepted practice, if it produces the effect you want, it's good. Your own taste is the only guide in these matters.

If you want to experiment with cropping, we suggest you first make a full-frame enlargement. Then take a pair of cropping arms and try various croppings on the print. Although normally you can rely on a contact print as a guide, an enlargement is better for experimental purposes because it shows subtle effects that might not be evident in a contact print.



Here's a full-frame print Richard Avedon made of a portrait of undersea explorer Jacques-Yves Cousteau. Avedon tried various croppings before going ahead with his finished print.



Here's the cropping the photographer finally chose. By cropping off the chin and more of the top of the head [thereby breaking a generally accepted "rule" of portraiture] he draws attention more strongly to the eyes and the mouth, the details he felt were most significant. This is a harsh portrait of a weathered, unusual face, and Avedon was trying to capture the man's personality as he saw it, not to make a pleasing portrait in the conventional sense. From this standpoint, the cropping succeeds by emphasizing the intensity and animation of Cousteau's expression and the textures of his face.
[Courtesy *Harper's Bazaar*]

Irving Penn sometimes uses the shock effect of unusual cropping, although he always tries to do it at the time he composes the picture rather than later, during printing. A striking example of his work is this portrait of Tennessee Williams, with the top of his head cropped by the edge of the picture. This creates what Penn calls a "disturbance"–a provocative and unconventional effect. As in the Cousteau portrait, it focuses attention on the eyes, which are staring intensely at the camera. Penn feels that "disturbances" can be useful in photographs intended for publication. "They are a powerful means for breaking through to people who are stupified by a continual bombardment of images day and night," he says.
[Courtesy *Vogue*, ©1951, Condé Nast Publications, Inc.]

Unusual effects with wide-angle lenses

A wide-angle lens can be a valuable tool in creating unusual effects. You can use it to broaden the camera's field of view and get a sweeping, panoramic picture of your subject. With a wide-angle lens, too, you can distort perspective, making parallel lines seem to converge sharply and causing foreground objects to appear disproportionately large in comparison with more distant ones. When you employ this type of lens, space seems deeper and wider than usual–an effect that sometimes can express a mood or tell your story more vividly than the perspective of a normal lens.

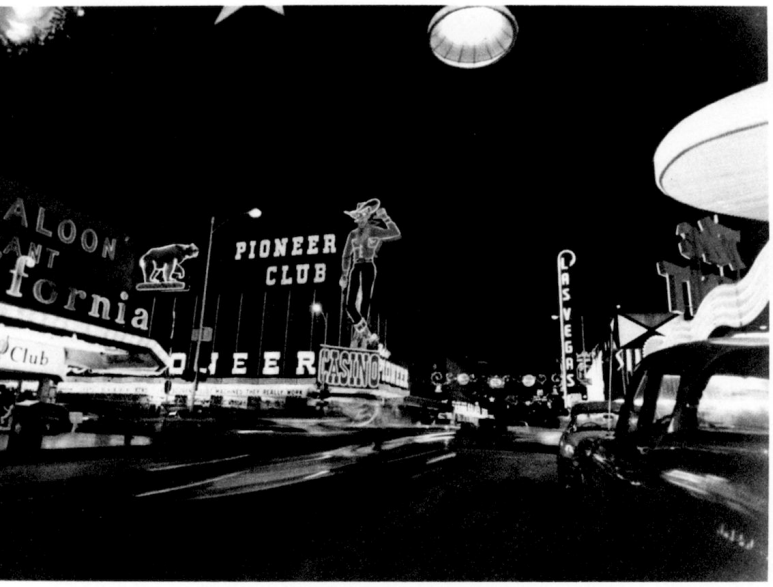
The panoramic effect of a wide-angle lens varies with its focal length and field of view. With a 35-mm lens on a 35-mm camera, for example, you include just a moderately larger amount of the subject than you'd get with a normal lens. With a 28-mm or 21-mm lens, the wide-angle effect becomes much more pronounced. With a super-wide-angle lens, such as Richard Beattie used for the street scene below, the extremely wide field of view creates a very striking picture.

With many subjects, a wide-angle lens can help you make a vivid, interpretive picture rather than just a matter-of-fact shot. A city skyline, a landscape, a street, a crowd scene, the huge interior of a palace, prison, or factory–these are typical subjects that lend themselves to a panoramic view. And don't forget you can turn your wide-angle lens on its side, too, to encompass the soaring height of a skyscraper or cathedral, when a normal lens might not get everything in.

If you want to minimize the effect of perspective with a wide-angle picture, make sure your camera is straight and level and don't get too close to any foreground object. However, if you want to exaggerate the perspective for an effect, then you should do just the opposite–tilt or angle your camera to make parallel lines converge at a sharp angle, or thrust your camera close to a foreground object to make it seem huge.

[Remember, it is not the wide-angle lens itself that alters the perspective. Perspective effects depend on your distance from the subject. But the greater depth of field of a wide-angle lens enables you to move in closer to your subject, and thereby distort perspective.]

Of course, you should always have a purpose when you exaggerate the perspective in a picture. For example, if you're shooting down from a high building you might want to increase the dizzy feeling of height by emphasizing the converging vertical lines of the building. If you were photographing a politician famous for his handshake you might make his hand look gigantic by getting close to it with a wide-angle lens. Or you might want to exaggerate the size of a person's head, nose, ear, or arm for a comic or dramatic effect.



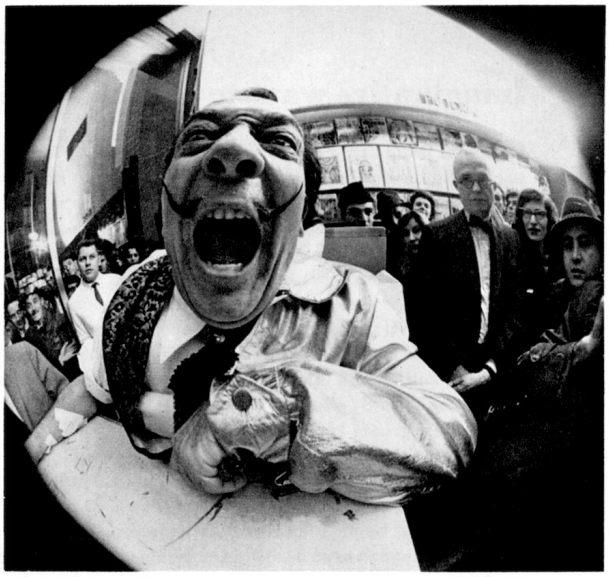
If a normal lens doesn't encompass enough to tell your story or dramatize a scene, consider using a wide-angle lens. Here, for example, a wide-angle lens helped Richard Beattie catch the excitement and glitter of a Las Vegas street after dark. He felt the picture should have a wide expanse of view that would include both sides of the street and many neon signs of gambling casinos. For this effect he used a super-wide-angle lens with a viewing angle of about 100 degrees. Wanting streaks of motion to add interest to the otherwise empty left foreground, he waited [with his camera set for a time exposure] until a car drove past and then he shot.

You can use perspective exaggeration to make important details big, as Philippe Halsman did in this picture. Assigned to photograph comedian Garry Moore for a magazine, he wanted something more lively than the conventional portrait. To get this startling effect he used a very wide-angle [65-mm] lens on a 4x5 view camera mounted on a stepladder so he could aim down. The perspective distortion emphasizes Moore's characteristic breezy hand wave and friendly smile. "Here I made the head and hand large," says Halsman. "If I were photographing a long-distance runner I might use the same lens–but I'd probably shoot from a low angle to enlarge his legs."

Working with fisheye lenses

Strange effects are possible with a *fisheye lens* [so called because of its approximately spherical shape, like the bulbous eye of a goldfish]. A fisheye is a super-wide-angle lens of special design that gives an angle of view of 180 degrees. It produces a circular picture with straight lines recorded as curves. This "spherical perspective" gives a startling, Alice-in-Wonderland look to the world. The familiar laws of space and perspective seem all askew.

For an imaginative use of this lens, see the accompanying pictures by Philippe Halsman. Halsman wanted a startling picture of the surrealist painter Salvador Dali signing autographs during a personal appearance at a bookstore. He decided to use the fisheye lens and combine two photographs. Here's how he did it.



1 For this shot, Halsman held his 35-mm camera with a fisheye lens about four inches from Dali's face and asked the artist to give him a ferocious roar. Notice the extremely distorted-looking perspective. With a fisheye lens the camera's viewfinder is virtually useless. You simply aim and shoot, trying to keep the subject centered and relying on experience.

2 Mounting his camera on a pole in a position about six feet above Dali's head, Halsman aimed straight down on him as he signed autographs. The fisheye's amazing 180-degree field of view takes in the surrounding crowd and almost the entire room [including a portion of the walls on opposite sides]. But everything is curved into a circular shape.

3 Halsman developed his film and made prints of Pictures 1 and 2. He cut out Dali's head from Picture 1 and pasted it in position on Picture 2, then rephotographed the combination to get a new negative. The picture reproduced here was printed from this negative. The result is a bizarre and startling photograph that reflects the subject's fantastic qualities as an artist and personality.

Imaginative ways to use motion blur

One of the intriguing qualities of a still photograph is its ability to suggest motion–the fleetness of a child running with a kite, the supersonic *whoosh* of a jet plane, a seagull's glide. As we've demonstrated many times, you can create a strong illusion of motion in a still picture by using motion blur. Here we'll review this important technique and show some advanced ways to apply it.

Motion means change in position. If the change occurs too fast for the shutter speed to freeze the image, the result is motion blur. You might think of the blur as a continuous series of overlapping images that show how far and in what direction the subject moved while the shutter was open. By selecting a longer or shorter exposure, you can control the degree of blur that you get.

The secret of achieving good results with this technique is to capture just the *right degree of blur*. If you use too little blur, this may look like a mistake–as if you wanted to stop the motion but were careless in your timing or choice of shutter speed. The blur should be pronounced enough to be decisive. On the other hand, if you use too much blur, everything may dissolve in a confusion of streaks. You'll need to experiment, shooting a number of exposures at different shutter speeds to record exactly the degree of blur that's best for your purpose.

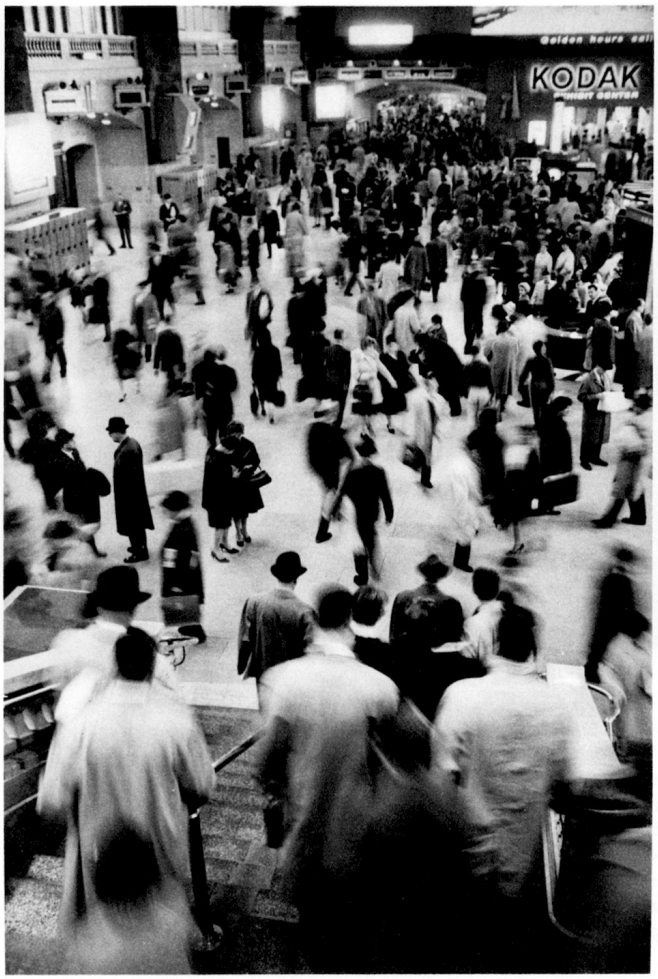
You have to judge each subject on its own merits. Sometimes just a trace of blur in part of the subject–a hand, arm, leg, a moving part of a machine, etc.–will be enough to say "motion." At other times you may want to show an important part of the picture sharp, but surround it with a whirl of motion blur. Or you may even want overall blur to give an impressionistic treatment of a moving subject.

To control blur in a picture, remember and apply the basic principles of stopping motion. At any given shutter speed, you get more blur the closer you are to the subject or the longer the focal length of the lens. If you want to reduce blur, move farther away or switch to a lens of shorter focal length. Also remember the importance of direction of motion–the apparent movement is greatest when the subject travels across your line of sight; it's least when the subject is moving directly toward you or away from you. So by your choice of camera position in relation to a moving subject you can control the degree of motion blur.

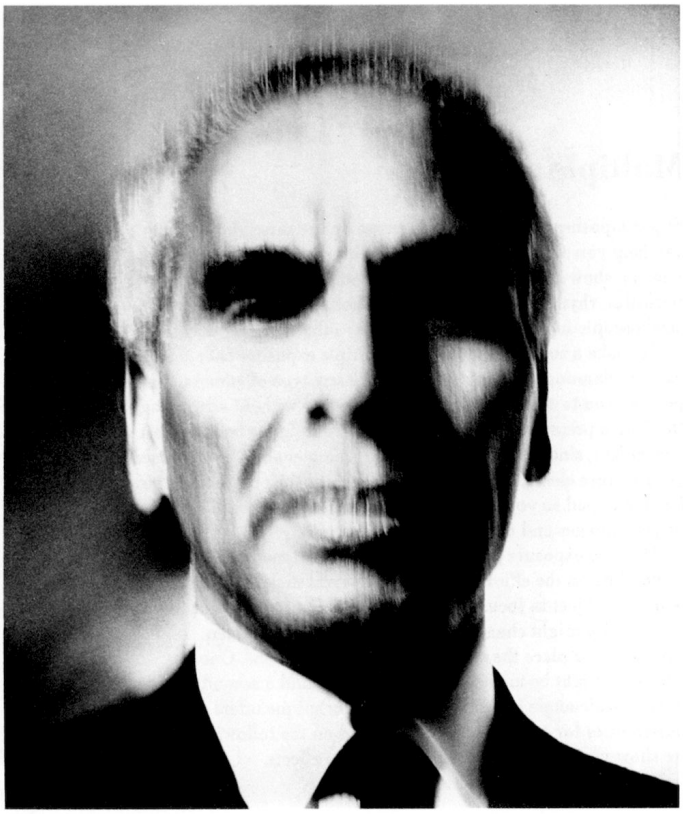
In most pictures you'll probably want to stop motion as much as possible to get a clear, sharp image. But if your goal is an unusual photograph of an action subject, consider blurring motion with a slow shutter. Beautiful and exciting effects are possible with this means, as the accompanying pictures show.

Just a touch of motion blur may be enough to bring a photograph to life. For example, look at this portrait of the Spanish flamenco dancer Escudero by Richard Avedon. Although the dancer was an old man when this picture was taken, Avedon was struck by his physical vitality–particularly in his hands. By using a shutter speed of 1/60 second and shooting as Escudero clapped his hands in time to rousing Spanish music, Avedon emphasized the dancer's energy. [Courtesy *Harper's Bazaar*]

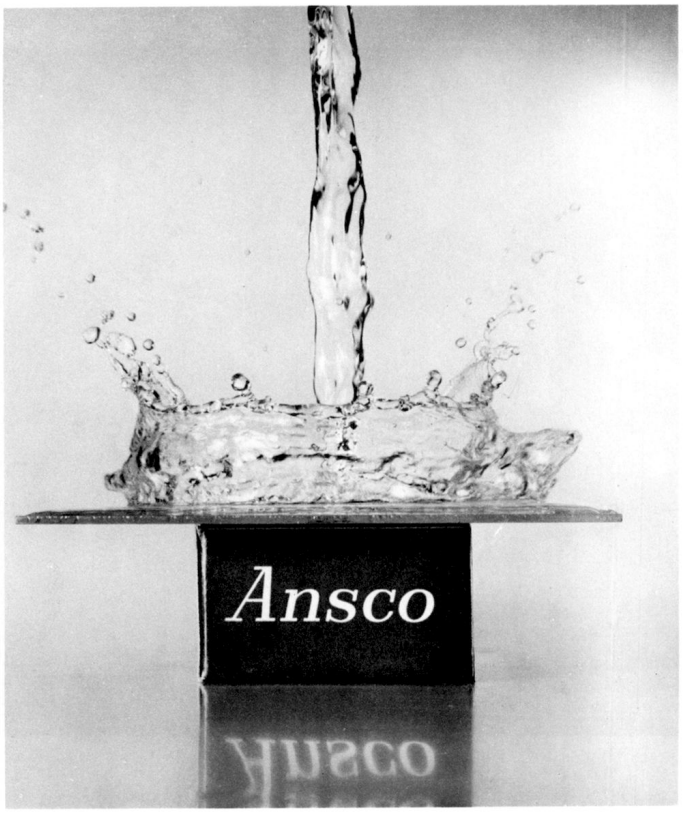
Motion blur can add an exciting touch to a fashion picture, as in this shot by Bert Stern. To dramatize a new winter fashion, he decided to show his model in a "snowstorm." He created the effect by having assistants throw imitation snow between the camera and the model, and blowing the flakes with an electric fan so they would slant across the camera as if driven by wind. Floodlighting made the snow shine brightly. Stern used a shutter speed of 1/15 second that blurred the snow and caught this interesting effect. [Courtesy *Vogue*, ©1962, Condé Nast Publications, Inc.]



If some things in your picture are moving and others are not, you sometimes can get an interesting blend of blur and sharpness, as in this photograph by Alfred Eisenstaedt. Assigned to do a picture story on New York commuters, he wanted a picture that caught the rush-hour atmosphere of crowds and hurry in a railroad station. He shot down on the concourse of Grand Central Station, using a wide-angle lens and taking a number of exposures at shutter speeds from 1/5 to 1/30 second. He selected this shot, taken at 1/15 second, because it had the best contrast between the blurred and sharply recorded figures.
[Courtesy *Life* magazine, ©Time, Inc.]



Remember that you can add motion blur by moving the *camera*, as Richard Avedon did in this portrait of Indian statesman Krishna Menon. After taking some straight pictures, Avedon set his shutter speed at 1/15 second and slightly lowered the camera during the exposure. Menon himself remained motionless–the camera movement alone introduced the blur. Avedon wanted the blur to heighten the impression he had of Menon as a vibrant, mystical personality.
[Courtesy *Harper's Bazaar*]



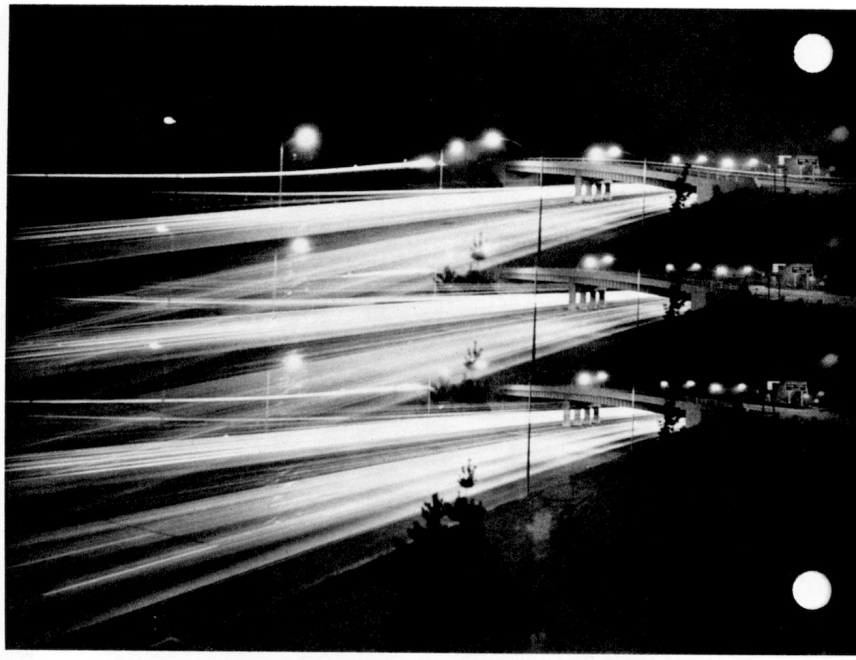
Sometimes you'll get your best picture by taking a different tack–completely freezing fast motion that we aren't accustomed to seeing clearly. Electronic flash or a very fast shutter speed is the method most commonly used for this. Here's a good example by Irving Penn, made for a film manufacturer to express the idea that the film is fast. An assistant poured water on the sheet of glass while Penn shot with electronic flash. The picture gains impact by showing us the strong sculptured form momentarily created by the splashing water.
[Photographed on Ansco film]

Multiple exposures

Superimposing two or more exposures on the same sheet of film can help you create pictures that are different. With this method, you can show several aspects of a person simultaneously, achieve beautiful, rhythmic patterns, suggest motion through repeated stroboscopic images, and produce many other striking effects.

To make a successful double or multiple exposure calls for careful planning. Although you can use any type of camera that permits you to make more than one exposure without advancing the film, a press or view camera with a groundglass back is most convenient, since the through-the-lens seeing enables you to place your picture elements where you want them. Your camera should be on a tripod so you can more accurately control the placement of your images and overlap them correctly.

Multiple-exposure pictures can be varied in many ways. Depending on the effect you wish, you might make one exposure with the subject in focus and then throw it out of focus for the second. You might change the camera viewpoint between exposures, or place the subject in different positions. One exposure might be made with a normal lens and a second with a long or wide-angle lens. As you see, the technique offers rich possibilities for experimenting. Here and on the following pages we show you how to achieve many of these effects.



By means of multiple exposures you can repeat a subject and create a dramatic pattern. This is the technique Arthur d'Arazien used to make this remarkable picture of a superhighway at night. Placing his camera on a tripod, he raised his camera front so the highway filled approximately one third of his picture area. He made a time exposure, during which many cars passed, leaving streaks of light on the film. Next he slightly lowered the front of his 8x10 view camera to change the position of the highway on the film and made a second time exposure. Then he lowered the camera front again and made a third exposure. [Each exposure lasted 20 seconds.] The result is this rhythmic triple image.

Multiple exposure can be used to show different views of a subject simultaneously, as Philippe Halsman did in this unusual multiple portrait of French playwright Jean Cocteau. The picture was taken during a long shooting session in which Cocteau and Halsman worked out many fantastic, dreamlike situations. The idea Halsman wanted to express visually was that Cocteau would be responsible for his own death. He decided to show Cocteau as if dead in the foreground, and also as three guilty-looking figures in the background.

Halsman first shot a close-up of Cocteau's face with eyes closed. He used a 4x5 camera in a vertical position and cropped Cocteau's head with the left edge of the picture area. Then the photographer turned the camera to a horizontal position for the remaining three exposures. In the final print, as you can see, the figure shot in the close-up appears to be lying on his back.

To compose accurately, Halsman used a grease pencil to mark the outline of the close-up on the groundglass. When he turned the camera to make the shots of Cocteau in the background, he divided the remaining picture area into thirds. Then he had Cocteau change his pose for each exposure.

A black background was used for all the shots so no unwanted details would register and show through the figures. Also, Cocteau wore a black coverall to blend in with the dark background. A single electronic-flash unit provided the lighting–harsh and sinister in keeping with the theme of the picture,

How to record motion with multiple exposures

Another way to suggest motion, besides blur, is to make *a number of exposures showing the subject in different positions.* The sequence of images can record the flow of action in a striking and graphic way. This technique is sometimes called *stroboscopic photography.* Strictly speaking, stroboscopic pictures are those taken with a high-speed repeating *stroboscopic electronic flash* which fires automatically at short, preset intervals. However, it is possible to achieve a similar effect with ordinary flash or electronic flash, as we'll demonstrate.

To shoot multiple-exposure action pictures you need a light-colored [or strongly illuminated] subject against a black background. Otherwise the background will show through, making the subject seem transparent or even blotting it out. A sweep of black seamless paper provides a good background, or you might shoot the picture at night, or against a dark sky or distant unlighted background.

If your subject is moving slowly, or if you can direct him to perform the desired actions slowly, you can stop the action at different points with flash or electronic flash. However, if your subject is moving at high speeed, you'll need a stroboscopic electronic flash.

In these three pictures, Victor Keppler demonstrates several variations of the basic technique. His purpose was to show dramatically various activities of a housewife for an advertisement. Later, an artist would sketch in on each print the appropriate household equipment–a washing machine, clothes dryer, dishwasher, etc. But the main point of each picture was to be the action of the housewife, shown through multiple images.

Here Keppler combined both blur and a sharp image of the model. [She is wearing a gardening glove and holds a clipper to symbolize garden work.] Two 75-watt floodlights–one at left and one at right –and an electronic-flash unit were used. The photographer opened his shutter, and the girl, illuminated by the floods, ran into the picture area [leaving streaks of motion on the film] and then leaped. As she leaped, Keppler fired the electronic flash, recording the image sharply, and then closed the shutter.

Experimenting with another variation, Keppler set his electronic flash [it was a stroboscopic type] to fire automatically at five times per second. This produced three distinct but overlapping images of the model. [Here she is carrying a duster and wearing an apron to symbolize cleaning.] Without an automatically repeating flash, you could get the same effect by having the model repeat her action while you shot different phases of it until you got the sequence of images you wanted. [Use flash alone, without floods.]

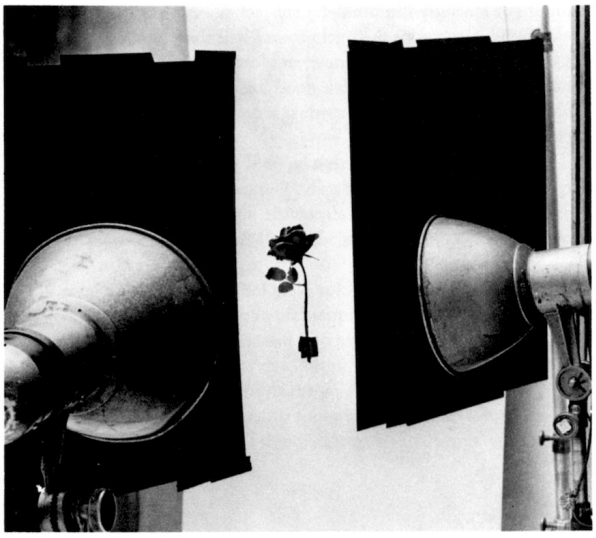
To increase the number of images you get with stroboscopic flash, you can have the subject go through the action more slowly or you can increase the number of flashes per second. To get a large number of overlapping images like this, the photographer set his flash for seventeen exposures per second. With any given number of flashes, you'll have to experiment and guide your subject's speed to produce the effect you want. The action should have a graceful flow.

Shooting a montage

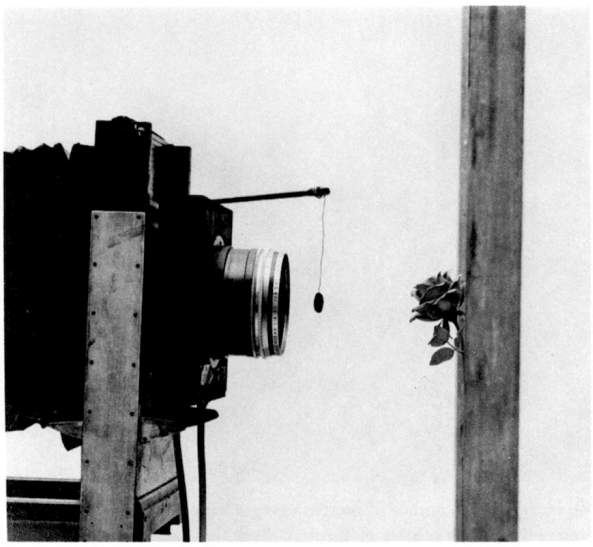
An important use of multiple exposures is to make a *montage*–two or more pictures combined so they blend with each other to tell a story or create an effect. Montages also can be made in the darkroom by printing two or more negatives on the same sheet of paper, and by the paste-up [also called *collage*] method–cutting out part of one print and pasting it down on another. But often the most convenient and effective way is to create the montage *in the camera itself* by making a number of exposures on the same sheet of film.

On these two pages Victor Keppler demonstrates a good way to shoot montages. Although he combined a total of four exposures [one of a large rose, two of smaller roses, and one of a girl], you could use a similar method with more or fewer exposures. The rose-and-girl photograph [Picture 9] shown here was one of twelve montages made to illustrate a company calendar. Each picture showed a girl combined with a flower or shrub symbolizing a country where the company had a branch. The photographer made test exposures on black-and-white film at each step in the shooting, but shot the final pictures on color-transparency film.

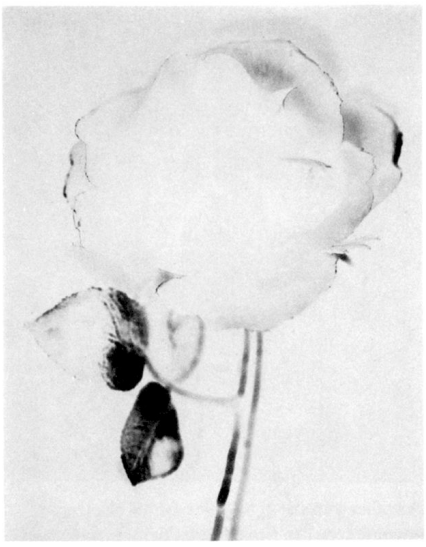
1 Here's the setup. A frame holds a large pane of glass, to which an artificial rose is taped. [A real rose would have wilted during the prolonged shooting.] A background of black felt [not visible] behind the rose prevents background details from showing through. The camera was an 8x10 view, the lighting electronic flash.



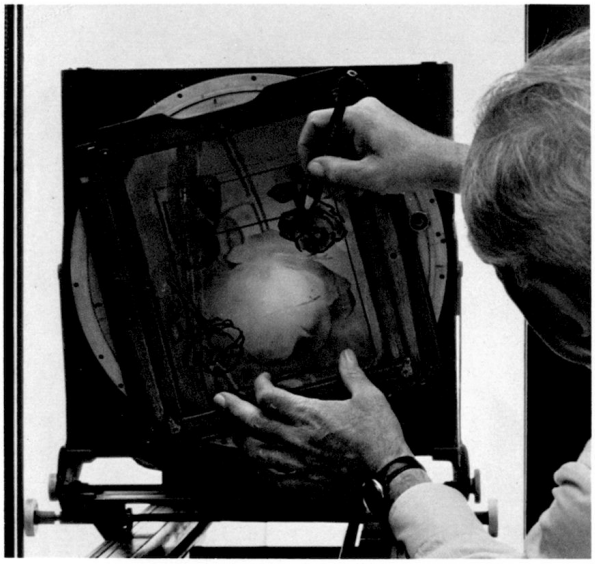
2 This detail view of the setup from behind shows the rose taped to the glass, with black paper masks added to prevent flare from two electronic-flash units in a backlighting position. For the first exposure the flash units were aimed to rimlight the rose but leave its center dark.



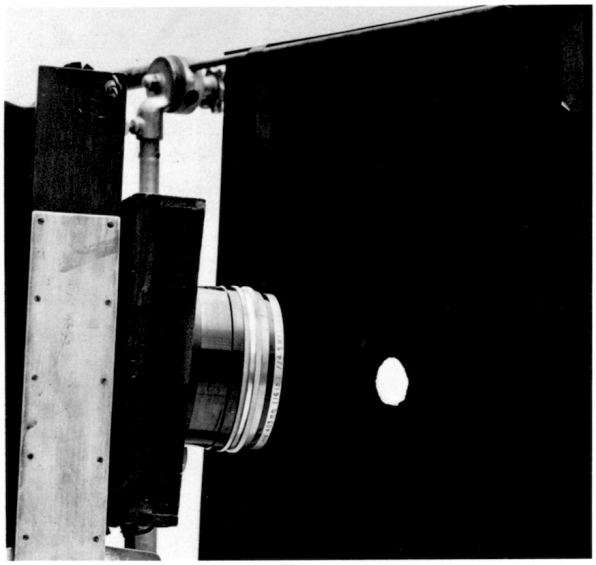
3 For his first exposure the photographer wanted a large image of the rose that would frame the girl's head when her image was added. Considerable bellows extension gave him the size he needed. To block off light from the center of the rose [where the girl's face would appear], he used the device shown–a small, round piece of cardboard attached to a fine wire and placed between lens and rose.



4 Here's a black-and-white test negative produced by the method shown. Notice that the blocked-off center of the rose is clear. Keppler exposed several sheets of black-and-white film, developing one as a check on exposure and keeping the others for additional exposures and tests. When satisfied with the test, he exposed several sheets of color-transparency film and put them aside, undeveloped.



5 Next, the photographer made two additional exposures, each putting a smaller image of the rose in the picture. He used the same rose as before, but achieved smaller image size by moving the camera back and refocusing. To help place the roses exactly where he wanted them, Keppler attached his black-and-white test negative to his groundglass, then marked with a grease pencil where the other two roses were to go and how large they should be. A tracing of the negative on a sheet of translucent paper can also be used as a guide, but a negative is more accurate.



6 When making the exposures for the two smaller rose images, Keppler used this shield to reduce the danger of stray light reaching the film. He cut a hole about the size of a silver dollar in a sheet of black cardboard and hung it in front of the camera lens. Checking the groundglass, he positioned the hole so it blocked out everything except the image of the rose. Taking one of the exposed but undeveloped test sheets of black-and-white film [with the single rose on it], he gave it two more exposures to add the two small roses, then developed it.

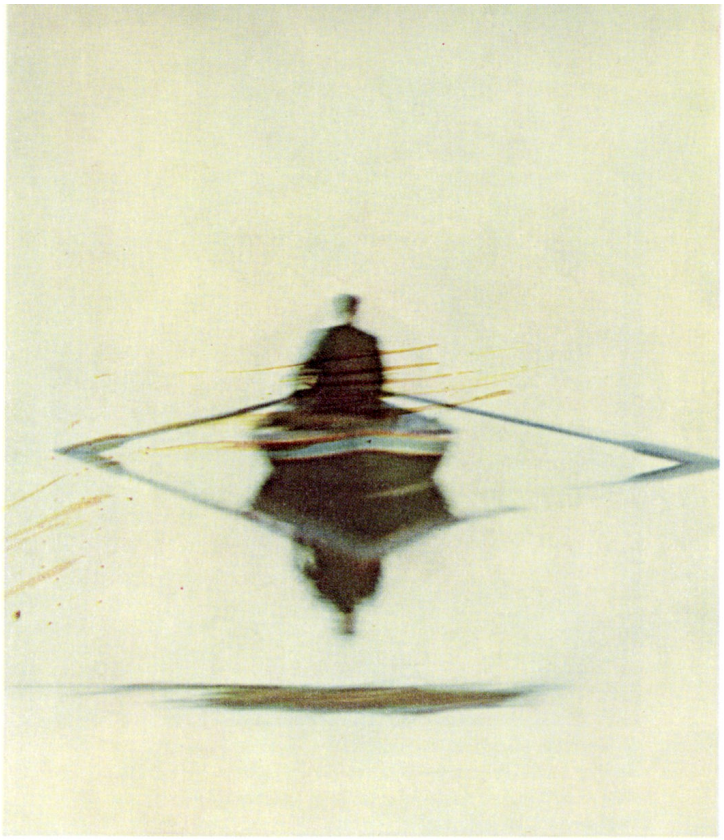
7 Here's the second test negative with the three exposures. In making multiple-exposure montages, it's wise to test each step of the way to be sure that lighting, image placement, and exposure are correct. Satisfied with the black-and-white tests, Keppler took the sheets of color film exposed in Step 4 and added the two small roses to each. Again, he set them aside without developing.

8 Next, Keppler made some black-and-white test shots of the model he planned to frame inside the rose. One of these shots is shown here as the photographer is superimposing it over a black-and-white test negative of the three roses. By looking at the two negatives on a light box he could check that the girl's head would fit in the center of the large rose. When you make a complex montage like this you must carefully control the size and position of the images you superimpose.

9 For the final picture Keppler took his three-times exposed color film and added a fourth exposure–the girl. The shot used is reproduced in black and white here. No background shows through because of the care taken to block off stray light and keep the background dark throughout. [Courtesy The Timken Roller Bearing Co.]

Experiments in color

Sometimes you can take color as you find it and create fine pictures in a realistic style. But, as we've demonstrated many times, color can be controlled and distorted, too, to intensify the mood you want to convey or the visual impact you want to achieve. A filter can make the colors of a sunset seem to burn more brightly; with the aid of colored gels you can add color where none existed; and by throwing areas of color out of focus you can blur and blend them in attractive impressionistic effects. So don't be afraid to alter the colors in a scene when this will help you get your picture idea across with greater clarity. The photographs reproduced here show you what you can achieve by experimenting–by being willing to take a chance and try something different from the conventional ways of seeing and recording color.



This photograph of a man rowing on the river Seine bears a striking resemblance to an impressionist painting. To create this effect, Irving Penn used a long [150-mm] lens on his 35-mm camera and flattened out the perspective. He took the picture late on a hazy afternoon, deliberately overexposing the background so it would go blank. The photograph was made on color-negative film and then a portion of it was greatly enlarged to make the final print, with its distinct grain pattern. The yellow streaks were produced by scratches on the negative.
[Courtesy *Vogue*, ©1953, Condé Nast Publications, Inc.]

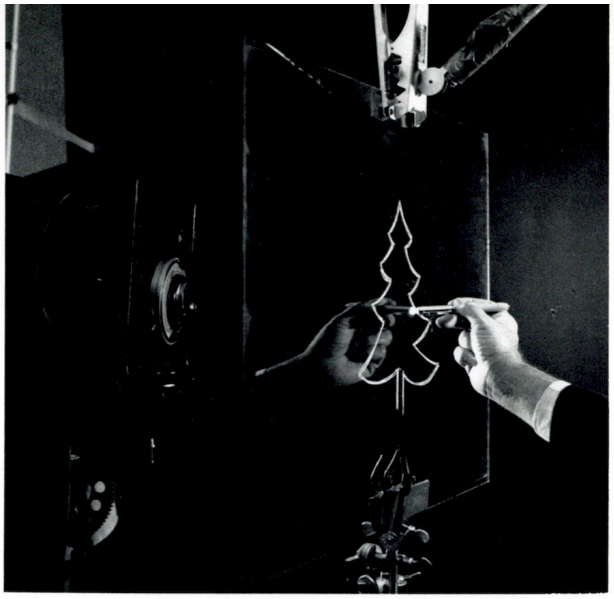
For this fashion-magazine cover Richard Avedon wanted a powerful, simple composition that would symbolize the theme "fashion and beauty after dark." He decided to silhouette the model with a 1,000-watt flood, placing it behind her to keep direct light from the lens. To get the blue tones he put blue cellophane over the flood. For a touch of mystery he hung a sheet of muslin between model and camera. He arranged the muslin so it pressed against the model in some places, causing a sharp outline. Where it did not touch her, he got a soft-edged outline.
[Courtesy *Harper's Bazaar*]

Creating designs in color

Although photography is basically a realistic medium, you can use it to create designs, patterns, and abstract effects. Color, in particular, lends itself to lovely fantasies in which the emphasis is not so much on the subject itself as it is on color, composition, texture, and other visual qualities. Experimenting with this kind of photography for its own sake can be stimulating, but it has practical applications, too–photographs with an appropriate design or pattern are used for greeting cards, on book or record jackets, or to make an eye-catching magazine layout or advertisement. The possibilities of creating designs in photographs are limited only by your imagination and ingenuity, but here are some good methods for you to experiment with.

'Drawing' with light

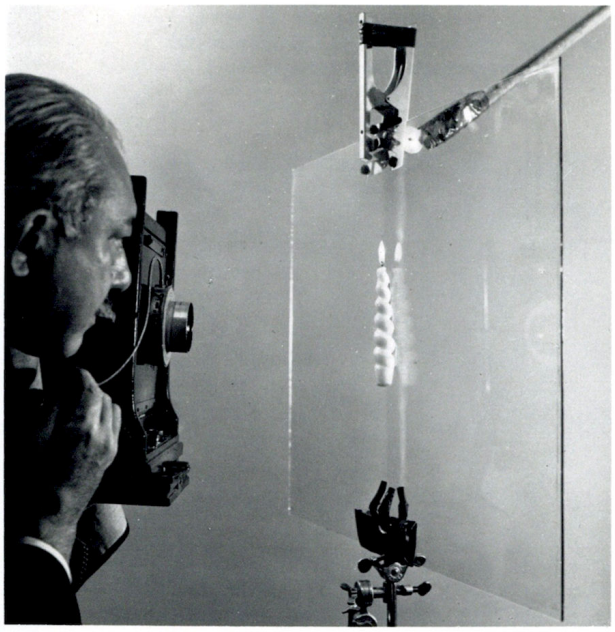
Victor Keppler combined two techniques–"drawing" with light and montage–to make this color photograph. He wanted a simple, strong design that would symbolize Christmas, and bold, poster-like colors. The illustrations show you how he did it. [Courtesy Hallmark Cards, Inc.]



1 First Keppler exposed for the tree outline, actually tracing it on the film with the narrow beam of light from a penlight. [You can use this method to create any outline you wish–in color or black and white.] He followed this procedure:

He set up a sheet of window glass in front of the camera, and drew the outline of the tree in chalk, to serve as a guide for the light. Placing a black background [not visible here] behind the glass, he turned off all room lights. [It's important to work in darkness so you don't put anything on your film but the design.] Then he opened the shutter and followed the chalk outline slowly with the penlight. To get bluish-green lines he used colored gel on the light.

With a little experimenting, you can learn to control the quality of line. Pointing the light directly at the lens gives a sharp, bright line. Angling it away gives a softer line. Be sure to close the shutter after you complete the drawing.



2 Next, Keppler added the candle and blue background. The photographer first placed a tracing of the tree outline on the groundglass of his camera to serve as a guide in positioning the candle exactly where he wanted it. Then he attached the candle to the glass with melted wax. A background of dark blue paper was set up behind the candle. [You can use any color background that's suitable but it must be *dark* or the light-colored penlight tracing won't show up clearly.]

After the candle was properly positioned and illuminated with a flood at right and another at left, Keppler lighted the candle and made a half-second exposure on the same sheet of film. When this was developed, the result was the color picture at left.

Creating unusual effects in the darkroom

The darkroom is another place where you can experiment with unusual effects. The mood of your picture, the story it tells, and its emotional impact can sometimes be improved with the help of unconventional developing or printing methods. For example, you might develop your film so as to increase the graininess, and then print on a very contrasty paper to bring out the grain even more. You might select a detail in your picture and print it big, or make a very high-contrast print that gives you a black-and-white image with few or no middle tones. You might superimpose the images from two negatives on the same piece of printing paper, or diffuse or distort the images during exposure. There is almost no limit to the unusual things you can try to get your idea across more vividly.

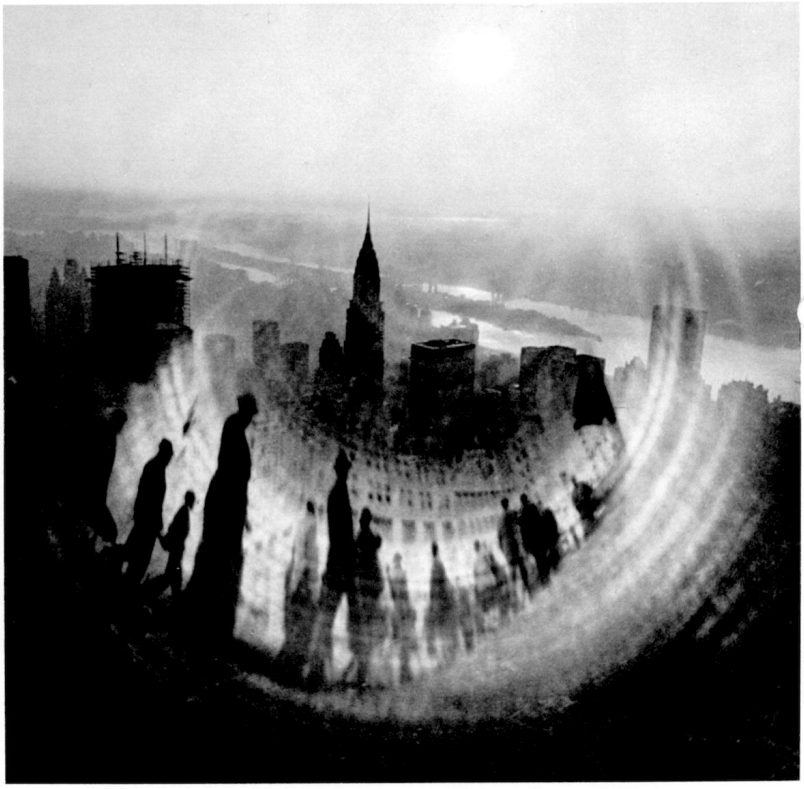
Making a composite print

You can achieve a montage effect–a composite of more than one image–in the darkroom as well as in the camera. A memorable example of the technique is Richard Beattie's interpretation of New York, which we saw in an earlier lesson. Beattie, you may remember, wanted to combine two images that symbolized New York for him–skyscrapers and people–and surround them with an atmosphere of mystery. Here we give you the story of how he took his two basic pictures and blended them to create this photograph.

1 To shoot the skyscrapers, Beattie climbed to the top of the Empire State Building at dawn and photographed a wide-angle view of the city. He wanted a halo effect caused by lens flare. From previous experience with a popular brand of color-negative film, he knew it tended to produce the circular flare he wanted. Therefore, he used this color film, even though he planned to make his final print in black and white. The flare only seemed to occur when the camera was pointed directly into the sun, as was done here.

2 For his second shot, he took a wide-angle picture of a crowd at a busy intersection, with his camera actually placed in the gutter. He operated the camera by a long cable release, and shot after a traffic light changed and people began to hurry past.

3 To combine the two shots, Beattie first put the skyscraper negative in his enlarger and exposed a sheet of printing paper. Then he placed the crowd negative in the enlarger and made a second exposure on the same sheet of paper. However, this time he *curved the printing paper during the exposure.* This picture, made for demonstration purposes, shows how the curvature distorted the image and threw it out of focus at both sides.



4 When developed, the print looked like this, with the crowd curved in a semicircle that repeats the curve of the halo. The two images blend in a lovely and intriguing way and tell the story better than either one alone could have.

Diffusing a print

You can create fascinating effects by placing a diffusing material–gauze, vaseline smeared on a piece of glass, crumpled cellophane, etc.–between the enlarger lens and an area you want to soften in the print. An even more unusual diffusion method was used in this picture by Richard Avedon. His purpose was to show a new style of hat in a romantic atmosphere. He posed his two models in a restaurant in Paris and shot by available light plus flood fill-in light. He used relatively shallow depth of field to throw the glasses and tablecloth in the foreground and the lights in the background out of focus, enhancing the soft, dreamy mood.

In the darkroom, Avedon further increased the softness of the picture by printing through a sheet of tracing paper. He put the tracing paper on top of the printing paper, holding them in contact in the center area, which he wanted sharp. During the printing exposure he lifted the corners of the paper about a quarter-inch in areas he wanted to soften. Throughout the exposure he kept the tracing paper slightly in motion so its grain wouldn't show on the print.
[Courtesy *Harper's Bazaar*]

Wrinkling a print

How would you visually express the idea that a particular fabric for men's clothing is wrinkle-proof even when it gets wet? Here is Avedon's imaginative solution, done for an advertisement. He first photographed a man wearing a business suit and holding an open umbrella in the rain. [The picture was shot on a rooftop and the rain is simply water from a hose held above the model and out of camera range.] Then Avedon made a straight print, like the one at right. He made a second print on single-weight paper, crumpled it, partly smoothed it out, and copied it. The result is shown at left. In the ad, the two pictures ran side by side, with the crumpled print symbolizing conventional fabric and the straight print symbolizing the wrinkle-proof qualities of this particular fabric–an eye-catching visual statement of the advertising message.
[Courtesy Du Pont]

Applying the techniques

Success in creating unusual photographs depends on two factors: [1] your ability to see even commonplace things in an uncommonplace way, and [2] your knowledge of photographic techniques—offbeat as well as conventional ones.

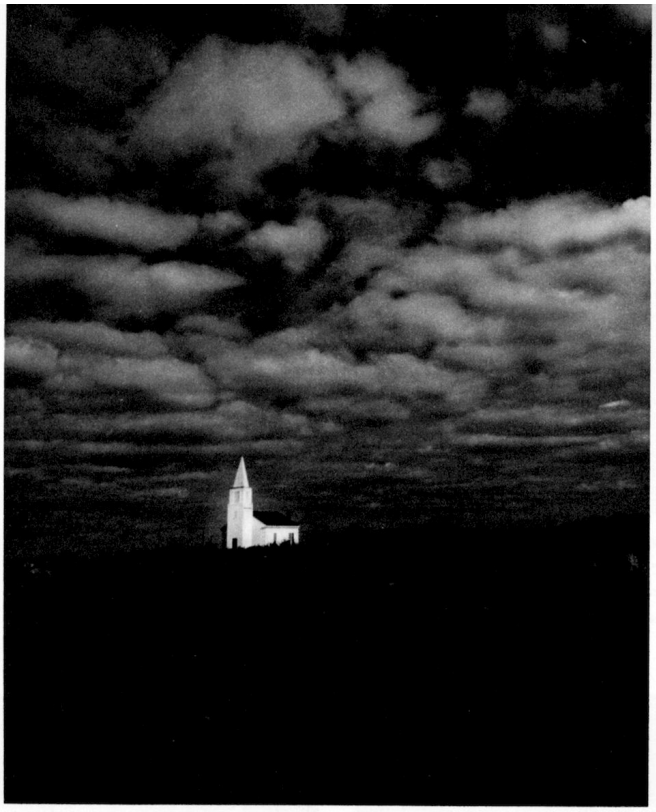
Without imaginative seeing and thinking to guide their application, the methods demonstrated in this lesson can be pointless. Employed for their own sake, rather than to strengthen the picture and its message, they are merely tricks. As we've emphasized throughout, *use them only when they serve a good purpose.*

On the other hand, without technical knowledge and skill in finding unusual ways to solve picture problems, you are limited in your ability to express what you think and feel. Sometimes a special technique like motion blur, multiple exposure, or printing through a diffusing material provides just the right touch to turn an ordinary picture into an outstanding one. And sometimes breaking the usually accepted rules gives you a much stronger photograph.

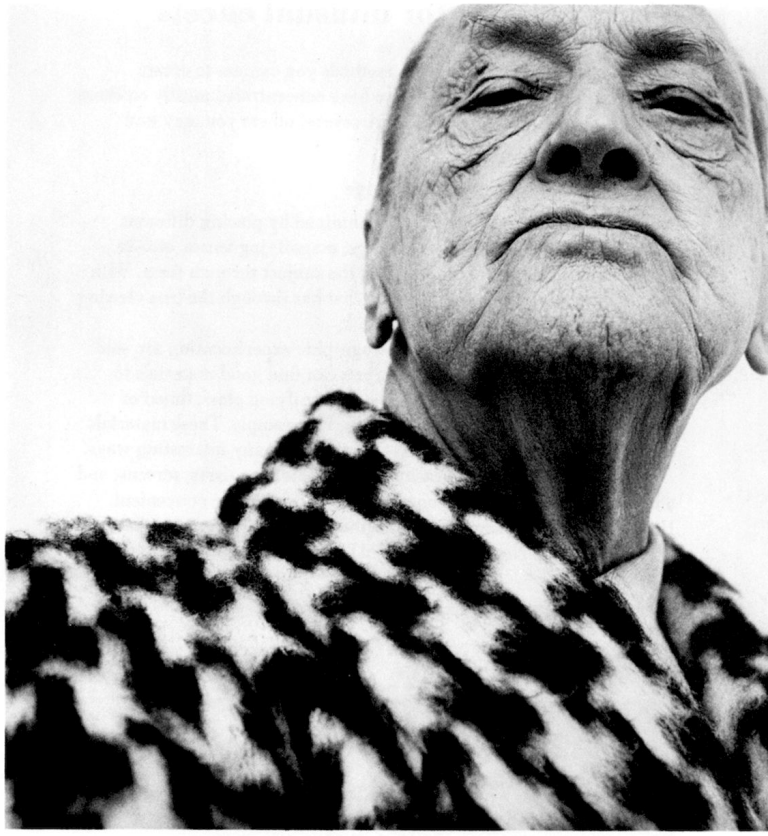
The illustrations on these pages are good examples of how seeing and technical ingenuity and skill can work together. Each picture is the result of imaginative seeing by the photographer. Yet each one depends, more or less, on unusual applications of technique, also. In your own photography, don't hesitate to make use of unconventional methods when the picture calls for it.

Philippe Halsman's purpose in making this bizarre portrait was to create a totally new artistic personality—a composite of Picasso and Dali. He made it in the course of shooting many offbeat pictures for his book *Dali's Moustache*. Halsman first made a portrait of Picasso for the right side of the face and one of Dali for the left side. He made the two faces exactly the same size. Then he cut off the left side of Picasso's face, placed both prints upright in front of his camera, with the Picasso print nearest the lens and positioned so it overlapped the Dali print. By tilting and bending the prints he was able to get the features to match perfectly and form this composite image.

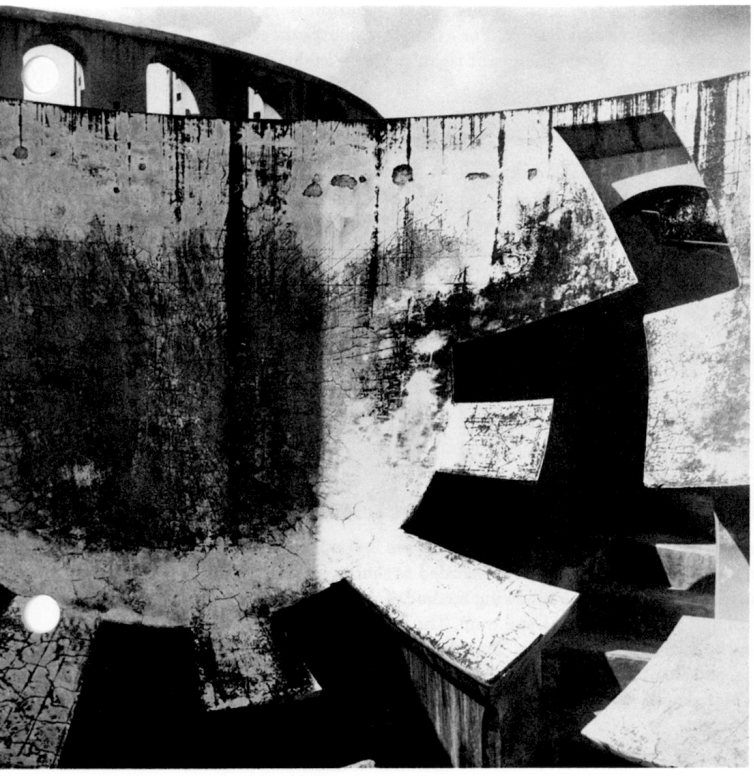
Richard Beattie was attracted by this beautiful section of the California coast while on assignment. After studying the scene, he decided to photograph it with a very wide-angle lens because he wanted a panoramic view that would dramatize it. Also, he knew there would be some falling off in brightness near the corners when he used this lens, and he felt this would help by darkening the sea and sky. He shot the picture late in the day because he wanted the warm hues in the scene to be intensified by the light of the setting sun. The only illumination came from a bank of lighted clouds after the sun sank behind them.



A combination of perceptive seeing and unusual methods enabled Alfred Eisenstaedt to produce this evocative photograph of an old church at Martha's Vineyard. The photographer's purpose was to conjure up the "dream world of deep serenity" he found in this rural setting. The isolation of the tiny white church amid the somber expanse of sky and field was emphasized in a number of ways. First, Eisenstaedt chose to take his picture from a distance, to show the church small. He also underexposed to make the fields and sky go darker than normal. In printing, these tones were deepened even more for a low-key effect in keeping with the mood he wanted to evoke. Then the white tones of the church were held by dodging. The result is a poignant expression of how the photographer felt about the scene. [Courtesy *Life* magazine, ©Time, Inc.]



Richard Avedon deliberately broke a number of usually accepted "rules" of portraiture in this powerful photograph of author Somerset Maugham–but he did so with good reason. For example, he moved in close and shot up at an angle to emphasize Maugham's unusual dressing gown and the aggressive thrust of his chin. The placement of the head in the upper right-hand area and the extreme cropping help create a dynamic composition in keeping with the author's personality. By cropping the top of Maugham's head, Avedon also calls attention to his eyes, which are filled in with shadow, in violation of another common practice in portraiture. Here the cropping and the shadows intensify the aloofness in the man's stare.



Sometimes a strong design element in your subject is the thing to look for and emphasize. Search for simple, basic shapes–a square, rectangle, circle, etc. Then find a camera position and lighting that clearly bring out this shape. With this approach, you need to visualize your subject as a flat design–an abstract arrangement of shapes on your picture area–as well as a three-dimensional form in space.

That's what Irving Penn did in this unusual photograph he shot at an ancient astronomical observatory in India. The picture shows a portion of a stairway through an irregularly cut opening in the wall. But it is the interplay of geometric shapes and the tones of light and dark that we are most aware of. To emphasize flat pattern rather than space, Penn exposed for the highlight areas and let the background shadows go dark.
[Courtesy *Vogue*, ©1964, Condé Nast Publications, Inc.]

More methods for unusual effects

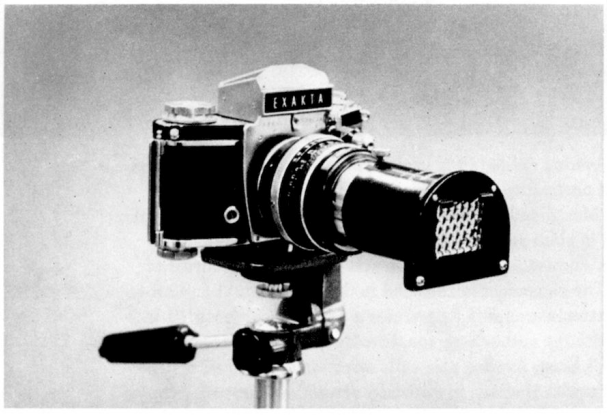
There is practically no end to the methods you can use to create unusual or special effects. So far we have concentrated mostly on those with a wide application. But here are several others you may find highly useful and interesting.

Diffusing and distorting the image

Strange and beautiful effects can be obtained by placing different materials–screens, diffraction gratings, magnifying lenses, etc.–in front of your lens and photographing the subject through them. With this method, it's best to use a camera that has through-the-lens viewing so you can readily control the effect.

Kits of optical materials for photographic experimenting are sold by optical supply houses. However, you can find good materials to experiment with around your home–a magnifying glass, fluted or knobby glassware, and window screens, for example. These materials can distort, diffuse, and break up the image in many interesting ways.

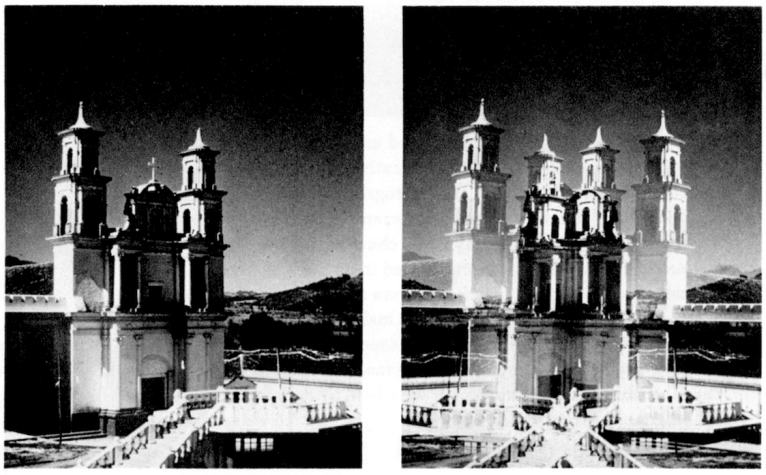
You can obtain special attachments for holding prisms, screens, and other materials in front of your lens. These devices are convenient. However, often you can simply tape the material to your lens shade. [Photographs by Norman Rothschild]



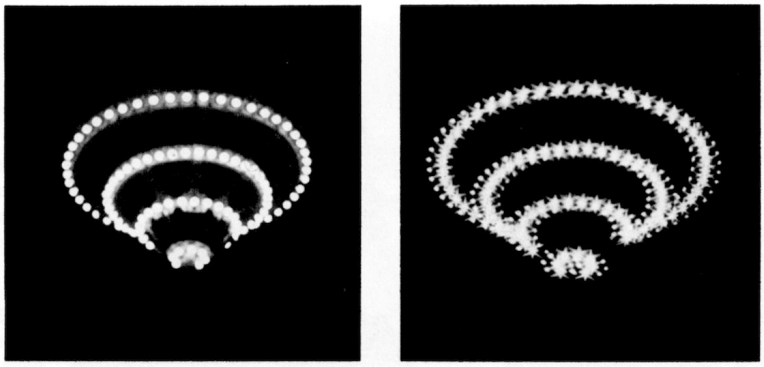
Tube and holder: The tube and holder attached to the front of this 35-mm single-lens reflex camera are designed to hold optical materials that give special effects. Here a multiple-lens grid is in position.

Magnifying glass: An ordinary magnifying glass used in place of your lens will give a soft-focus effect such as you see here. This can be useful when you want a mood of fantasy or a dreamlike quality. Try different strengths of magnifying glasses for different effects.

Diffraction grating: This grating is a piece of glass or plastic that has fine parallel grooves cut in it. The grating breaks up white light into a color spectrum. With a special circular diffraction grating, you can create a distinct halo by shooting into the sun, as was done here.



Prisms: Special prisms are available from optical supply houses for use in photography. Depending on the design of the prism, it will multiply your image twice or more, giving you an opportunity to create rhythmic patterns and designs. For example, compare the straight picture at left with the picture at right, made through a prism that doubled the image.



Cut-out shapes: Any points of light–such as the individual light bulbs in the chandelier at left–can be recorded as shapes [stars, diamonds, hearts, etc.] by the following method. Take a piece of cardboard and cut out the shape you want. The opening should be small–say half an inch or so across. Tape the cardboard in front of your lens, and shoot with the *lens wide open* and the lights out of focus. A star-shaped cutout produced star-shaped lights, as in the picture at right.

Technical notes on the photographs

Page 2
Irving Penn; Rolleiflex with a 75-mm *f*/3.5 lens; Super-XX film; 1/50 second at *f*/3.5; bank of floodlights.

Page 4
Alfred Eisenstaedt; Rolleiflex with a 75-mm *f*/3.5 lens; Super-XX film; 1/100 second at *f*/8; daylight.

Page 4
Bert Stern; Nikon F with a 50-mm *f*/2 lens; Tri-X film; 1/125 second at *f*/8; daylight.

Page 5
Irving Penn; Rolleiflex with a 75-mm *f*/3.5 lens; Plus-X film; 1/5 second at *f*/11; bank of floodlights.

Page 5
Richard Avedon; Rolleiflex with a 75-mm *f*/3.5 lens plus a No. 2 close-up lens; Plus-X film; 1/60 second at *f*/8; daylight.

Page 5
Bert Stern; Nikon F with a 105-mm *f*/2.5 lens; Tri-X film; 1/60 second at *f*/4; available light.

Page 5
Harry Garfield; Mamiyaflex with a 135-mm lens; Plus-X film; 1/60 second at *f*/5.6; deep shade outdoors.

Page 6
Irving Penn; Rolleiflex with a 75-mm *f*/3.5 lens; Plus-X film; 1/5 second at *f*/16; daylight.

Page 6
Irving Penn; 8x10 Deardorff with a 12-inch lens; Super-XX film; one second at *f*/11; floodlights.

Page 6
Bert Stern; Rolleiflex with a 75-mm *f*/3.5 lens; Isopan Record film; exposure for electronic flash at *f*/11; bounced electronic flash.

Page 7
Richard Avedon; Rolleiflex with a 75-mm *f*/3.5 lens; Tri-X film; 1/30 second at *f*/5.6; daylight.

Page 7
Irving Penn; Rolleiflex with a 75-mm *f*/3.5 lens; Plus-X film; 1/5 second at *f*/16; daylight.

Page 8
Richard Beattie; Veri-Wide with a 47-mm *f*/8 lens; Ektacolor film; 1/8 second at *f*/11; available light.

Page 8
Philippe Halsman; 4x5 Meridian with a 65-mm *f*/8 Super Anglon lens; Ektachrome Daylight Type film; exposure for electronic flash at *f*/22; bounced electronic flash.

Page 9
Philippe Halsman; Nikon with motorized back and a fisheye lens; Tri-X film; 1/25 second at *f*/11; daylight plus electronic flash.

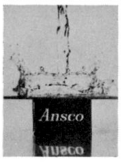
Page 9
Philippe Halsman; Nikon with motorized back and a fisheye lens; Tri-X film; 1/25 second at *f*/4; daylight plus electronic flash.

Page 10
Richard Avedon; Rolleiflex with an 80-mm *f*/2.8 lens; Tri-X film; 1/60 second at *f*/11; daylight.

Page 10
Bert Stern; Rolleiflex with an 80-mm *f*/2.8 lens; Tri-X film; 1/15 second at *f*/8; floodlights.

Page 11
Alfred Eisenstaedt; Leica III with a 28-mm lens; Tri-X film; 1/15 second at *f*/8; available light.

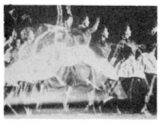
Page 11
Richard Avedon; Rolleiflex with an 80-mm *f*/2.8 lens; Tri-X film; 1/15 second at *f*/16; one floodlight.



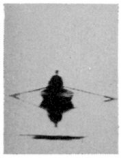
Page 11
Irving Penn; 8x10 Deardorff with a 12-inch lens; Super Hypan film; exposure for electronic flash at *f*/90; electronic flash.

Page 12
Arthur d'Arazien; 8x10 Deardorff with a 10-inch lens; Ektachrome Daylight Type film; three exposures: each 20 seconds at *f*/16; available light.

Page 12
Philippe Halsman; 4x5 Fairchild-Halsman with a 210-mm *f*/4.5 lens; Portrait Panchromatic film; four exposures for electronic flash at *f*/16; single electronic bounced flash.



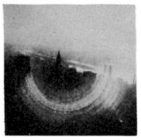
Page 13
Victor Keppler; 8x10 view camera with a 13-inch *f*/4.5 lens; Super Panchro-Press, Type B film; exposure for electronic flash at *f*/8; automatic, repetitive electronic flash plus two floodlights.



Page 16
Irving Penn; Leica IIIf with a 150-mm lens; Kodacolor film; 1/10 second at *f*/8; daylight.

Page 16
Richard Avedon; 8x10 Deardorff with a 12-inch lens; Ektachrome Type B film; 1/2 second at *f*/6.3; one 1,000-watt floodlight with blue gel.

Page 17
Victor Keppler; 8x10 view camera; Ektachrome Type B film; two exposures at *f*/16: first, time exposure while outline of tree was traced with penlight, and second, 1/2 second exposure for candle flame, with two 3200K floods illuminating the candle and background.



Page 18
Richard Beattie; Veri-Wide with a 47-mm *f*/8 lens; Kodacolor film; 1/10 second at *f*/8; daylight.

Page 18
Richard Beattie; Veri-Wide with a 47-mm *f*/8 lens; Panatomic-X film; 1/25 second at *f*/11; daylight.

Page 19
Richard Avedon; Rolleiflex with a 75-mm *f*/3.5 lens; Super-XX film; 1/10 second at *f*/3.5; available light plus flood fill.

Page 19
Richard Avedon; 8x10 Deardorff with a 16-inch lens; Ektachrome Daylight Type film; 1/25 second at *f*/16; daylight plus electronic flash fill.

Page 20
Philippe Halsman; two photographs copied to produce composite; 4x5 Linhof with a 150-mm lens; Super Panchro-Press, Type B film; one second at *f*/32; floodlights.

Page 20
Richard Beattie; Veri-Wide with a 47-mm *f*/8 lens; Ektachrome Daylight Type film; 1/250 second at *f*/11; daylight.

Page 21
Alfred Eisenstaedt; Leica with a 28-mm lens and a red filter; KB14 film; 1/125 second at *f*/5.6; daylight.

Page 21
Richard Avedon; Rolleiflex with an 80-mm *f*/2.8 lens; Tri-X film; 1/60 second at *f*/8; daylight.

Page 21
Irving Penn; Rolleiflex with a 75-mm *f*/3.5 lens; Super-XX film; 1/100 second at *f*/16; daylight.

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Norman Rothschild; Rolleicord with a 75-mm *f*/3.5 lens and a diffraction grating; Anscochrome Daylight Type film; 1/500 second at *f*/3.5; daylight.

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Norman Rothschild; Exakta VXIIA with a 120-mm *f*/2.8 lens, polarizing filter, and prism; Dynachrome Daylight Type film; 1/125 second at *f*/5.6; daylight.

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Norman Rothschild; Exakta VXIIA with a magnifying glass on extension tube; Dynachrome Daylight Type film; 1/500 second at *f*/2.8; daylight.

Page 22
Norman Rothschild; Praktisix with a 120-mm *f*/2.8 lens; Plus-X film; available light. Straight shot: 1/4 second at *f*/11. "Star" shot: cardboard cutout used to produce stars, 1/30 second with camera lens wide open. [The size of the star-shaped opening gave approximately the same exposure effect as a lens setting of *f*/5.6.]

Famous Photographers Course
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Lesson

21

Special methods

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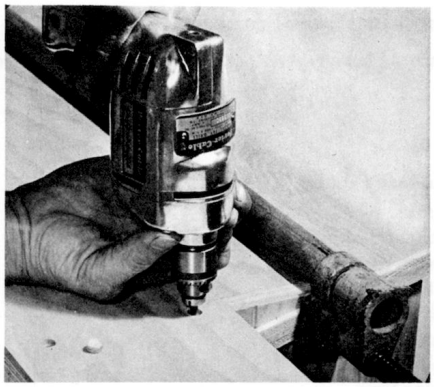
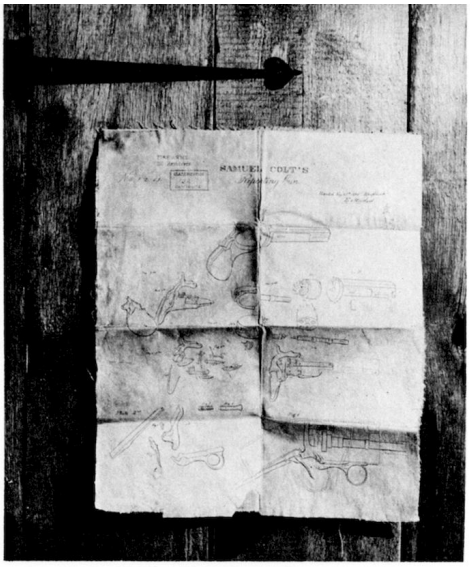


How-to



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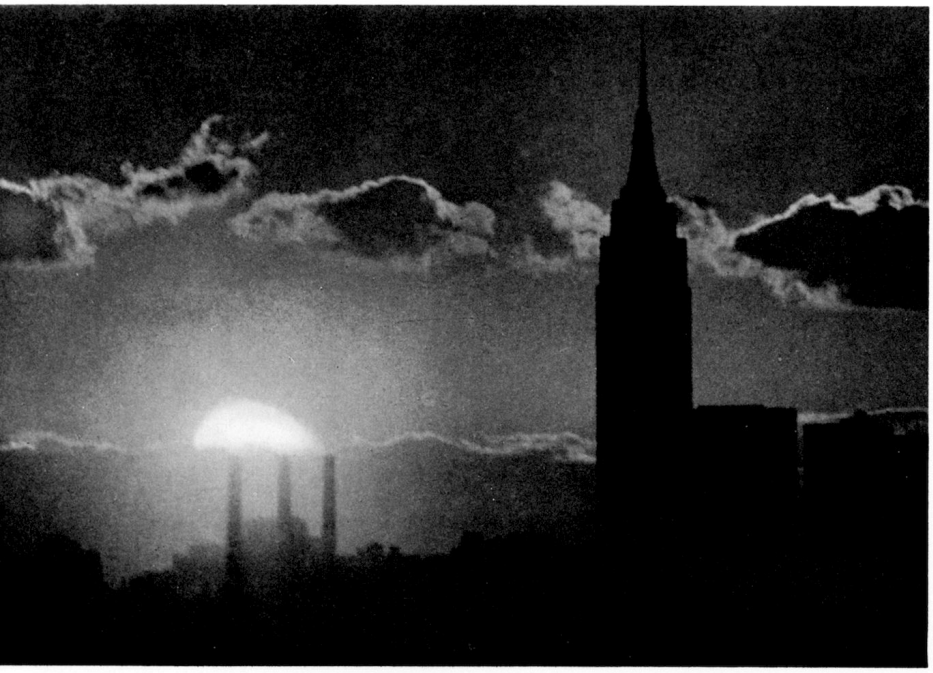

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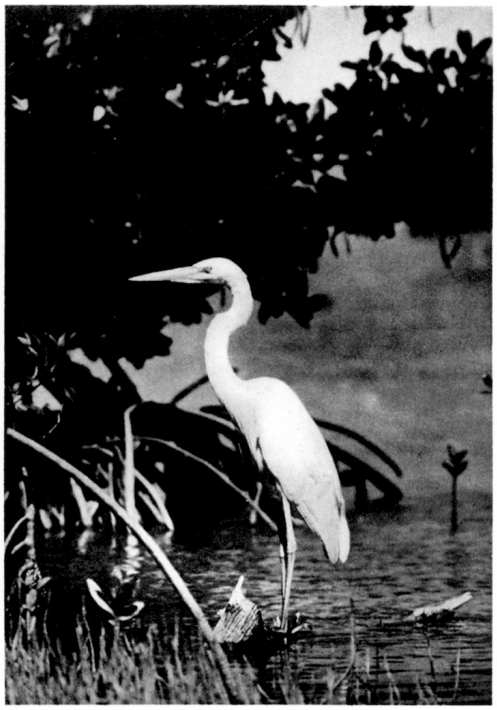
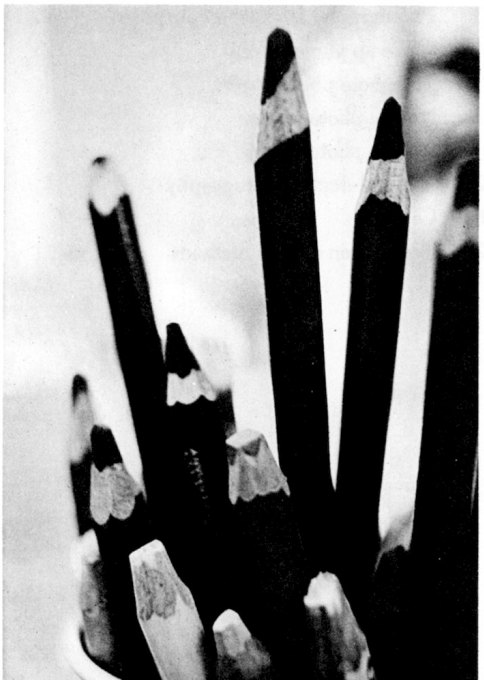
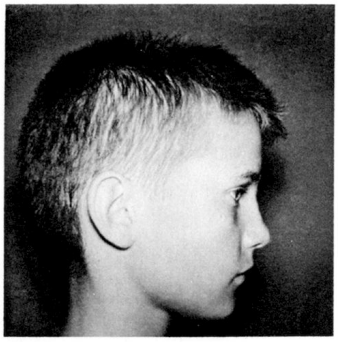


Nature

Close-up



Medical-dental



Photography for special purposes

One of the valuable things about photography is its versatility–the way it can be adapted to so many useful and pleasurable purposes. You can scarcely name a hobby, profession, or other human activity that photography doesn't touch in one way or another. In this lesson we introduce you to a number of its important but specialized uses–close-ups, telephoto techniques, nature photography, how-to photography, medical-dental work, and copying–each of which is symbolized by a picture on the facing page.

For each of the six areas of photography we cover here, we give you the basic principles–the simplest, most important methods you need to know for good results. Although much fascinating special equipment is available for these types of picture-taking, we'll emphasize the many things you can do with regular equipment. Where it is easy to build inexpensive accessories yourself, we'll show you how to do that. But, first, let's take a look at these six subjects and see how they can help you be a more versatile photographer.

Close-up photography

In this section of the lesson we show you special methods for photographing very small objects. With the aid of a close-up lens, extension tube, or accessory bellows you can explore an intriguing world where pebbles appear as large as boulders and a pencil looks as tall as a telephone pole. One big advantage of close-up photography is that you never lack for good subjects. Indoors or out, winter or summer, you have an inexhaustible array of things to photograph. You could do an unusual picture story on exploring, in extreme close-ups, the contents of a student's desk, the anatomy of a grandfather clock, the items in a woman's handbag, or the parts of an automobile engine.

The ability to take extreme close-ups can be very practical and profitable, too. Good photographs of small objects often are required in industry, advertising, and photojournalism. The basic skills and methods of close-up shooting can be applied to other subjects in this lesson, too, including copying, medical-dental photography, and nature photography.

Telephoto techniques

This section gives you pointers on using very long lenses–those about 300 mm in focal length and longer. You may not own a lens of this length now, but as you continue with photography you will probably find one useful somewhere along the line.

Like close-up shooting, very long lenses can open up a visually exciting new world to you. Their ability to magnify distant objects and to flatten out perspective has valuable aesthetic as well as practical applications. In doing a photojournalistic coverage, for example, a very long lens might give you good candids of subjects you couldn't photograph successfully from a close distance. A very long lens is a must for many sports and nature pictures. And if you shoot travel photographs, it gives you a good way to bring out the pattern and design in a landscape, to make a setting sun appear huge, or to show a city skyline in unusual perspective.

Nature photography

The world of nature is one of the photographer's richest sources of pictures. You don't need to travel great distances to find them, either. Wonderful shots of birds, small animals, insects, reptiles, flowers, and wild plants, can be made within a few miles of even the largest city.

If you are an amateur naturalist, a camera can sharpen your pleasure. You might "collect"–in good photographs–all the species of birds that inhabit your area. You might go after bigger game, hunting deer, bear, even lions or elephants with a camera rather than a gun. Or you might record the lovely colors and designs of fragile wildflowers for their sheer beauty.

'How-to' photography

Instructional pictures provide one of the biggest markets for photography today–and one of the easiest ways for a newcomer to make a reputation. If you have special skills or knowledge–or know somebody who does–consider putting this knowledge to use in how-to picture stories.

There's an art to making good how-to pictures, whether the subject is tying a fly or operating a bulldozer. It's the art of making a teaching point in pictures–clearly and pleasingly. We'll demonstrate some of the more glaring faults and show how to avoid them, and give you special methods for making how-to pictures more effective. This section can be one of the most important parts of your Course–if your goal is to sell pictures for publication.

Medical-dental photography

If you are a doctor or dentist, the chances are you already use photography in your work and know how helpful an aid the camera can be in medicine and dentistry. The basic methods we demonstrate here may help you do a better job. If you're not a member of the medical or dental professions, you may be able to do valuable work by taking pictures under the direction of a doctor or dentist for his own use or for publication in professional books or journals.

If you go into this aspect of photography you must be prepared to adopt a professional attitude. Shooting before-and-after pictures of an operation or doing a thorough step-by-step coverage of surgery is no job for the squeamish. But it can give you the satisfaction of recording information that may help save a patient's life, and the lives of others.

Copying

This is a practical, matter-of-fact kind of picture-taking, but a very essential one. Its purpose is to give you a faithful photographic reproduction of a picture, painting, or drawing, a page from a book or magazine, or any other piece of flat copy.

You can apply copying to your own photography. For example, you might copy a valuable picture to obtain a duplicate negative of it and thus safeguard the original. If you have a good print that was achieved by extensive dodging, printing in, and retouching, it's helpful to copy the final result and make a negative. From this you can produce as many duplicate prints as you want.

If you're a student or involved in research, the ability to make quick, readable copies of book pages, newspaper or magazine articles, or documents can be immensely valuable. If you're interested in art, copying gives you a way to collect color reproductions of your favorite paintings, drawings, and watercolors. [Many museums will allow you to copy the originals in their possession, if you don't sell the results or use them for commercial purposes.] In business and industry, it's often necessary to copy blueprints, plans, drawings, sales presentations, and other items. And almost everyone has old family photographs that might be improved by being copied through a filter, as we explain in this section.

As you can see, we cover a variety of useful and interesting subjects in this lesson. Of course, you'll probably be more interested in some of these special methods than in others. But if your goal is to become a really well-rounded photographer–either for pay or your own satisfaction–the entire lesson is worth careful study. Out of the techniques taught here may come some of your best pictures and your most profitable assignments.

[*Facing page*] *Close-up:* Garry Burdick, courtesy Hepler & Gibney, Inc.
Telephoto, Nature: Alfred Eisenstaedt, courtesy *Life* magazine, ©Time, Inc.
How-to, Medical-dental, Copying: Jackson Hand

Close-up photography

Taking close-up pictures of small objects or parts of objects is a fascinating and useful kind of photography. Seen very close up, small things appear large and unfamiliar: a razor blade looks as big as a house; a twig, leaf, or pebble reveals a beauty we are not aware of when we view it from the usual distance; commonplace objects take on importance and a dramatic quality. You can open up this strange, lovely world with your camera if you master the basic close-up techniques.

These techniques can be very useful in professional work. A photographer often may be called upon to shoot very small objects. Such work might include anything from a picture of a jeweled earring for an advertisement to catalog photographs of tiny machine parts. Also, much nature photography, medical-dental photography, and the copying of art work, photographs, and documents require close-up shooting.

Adapting cameras for close-up work

As we pointed out in the still-life lesson, there are three means commonly used to adapt cameras to close-up shooting: close-up lenses, extension tubes, and bellows attachments. Which one is best for you? The answer depends on the type of camera equipment you own and how close you want to shoot.

If your camera doesn't have interchangeable lenses, you'll need a close-up lens [or combination of lenses] for closer-than-normal work. With interchangeable lens cameras, you also can use extension tubes or a bellows attachment. [With a view or press-type camera having a long bellows you don't need any of these accessories–the camera bellows itself extends far enough to let you move in very close.]

With any camera having through-the-lens viewing, you can accurately focus and frame a close-up subject by inspecting the groundglass. For this reason, if you have any choice, select a single-lens reflex, press, or view camera for close-up work. You'll probably find them the most convenient types.

However, you can make good close-up pictures with other camera types, too, if you take steps to insure correct focus and framing. For example, with a viewfinder camera fitted with a close-up lens you'll need to measure the *lens-to-subject* distance to get sharp focus.

The manufacturer of the close-up lens you are using provides tables giving the correct lens-to-subject distance for various close-up lenses and combinations at different settings of the camera's focusing scale. These tables also give the dimensions of the field of view covered by the lenses. You simply set the camera's focusing scale according to the table, and measure the lens-to-subject distance. [Naturally, your camera needs to be on a tripod or otherwise securely held in position while you do this.] *Measure from the front surface of the lens to the subject.*

Here's a good method to save time in placing your subject at the proper distance. Take a string and tie a knot in it to mark the correct lens-to-subject distance for the particular lens you're using. Then you can use the knotted string [holding the knot at the lens and stretching the end out to the subject] to quickly find the right distance each time.

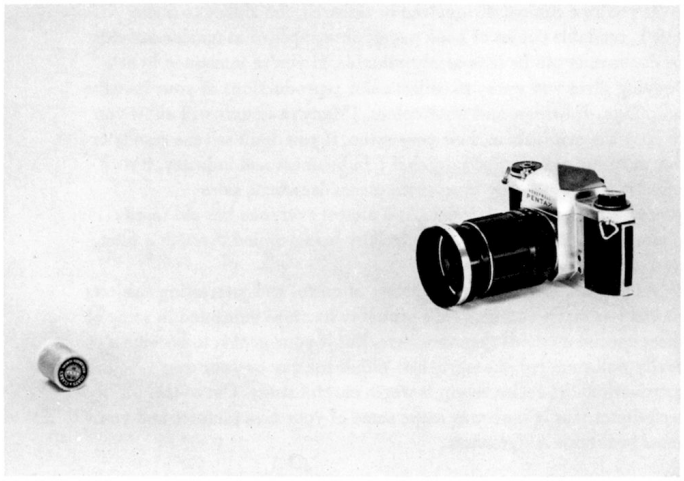
Remember to allow for parallax when employing a close-up lens. With a little experimenting you can determine how much extra space to leave above and to the side of your subject to frame it properly.

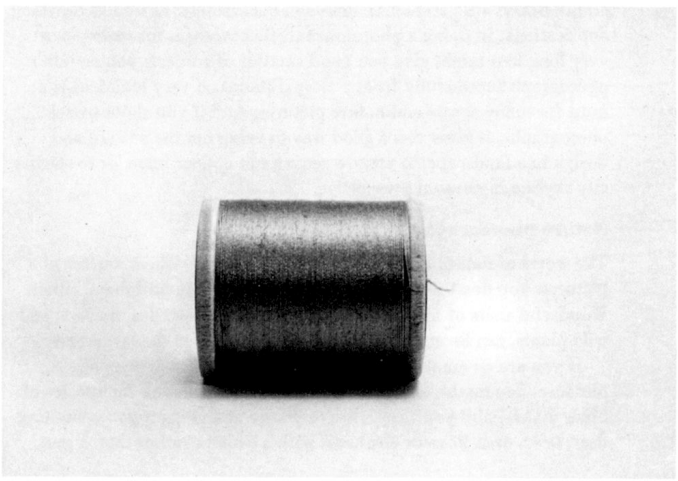
A more convenient and accurate method of close-up shooting with a viewfinder camera is to use a *focusing frame*. This is an accessory you attach to the front of your camera. It consists of a wire frame or two upright posts held at a fixed distance in front of your lens. You place the frame around the subject [or center the subject between the two posts] and shoot. If the frame is properly adjusted, your picture will show only the part of the subject within the frame, and the subject will be in sharp focus.

What about a twin-lens reflex? With this type of camera you can work with just one close-up lens. With the camera on a tripod, you place the close-up lens in front of your viewing lens and do your focusing; then you place the close-up lens in front of the taking lens and shoot. Naturally, it's more convenient to use a matched pair of close-up lenses–one in front of the viewing lens and the other in front of the taking lens.

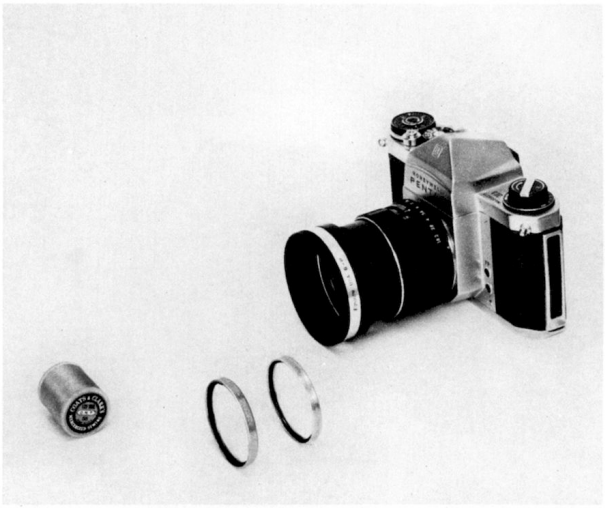
On the market are a number of special close-up accessories for twin-lens cameras, including parallax-correcting prisms that "bend" the view of the upper lens so it shows you what the lower [taking] lens sees.

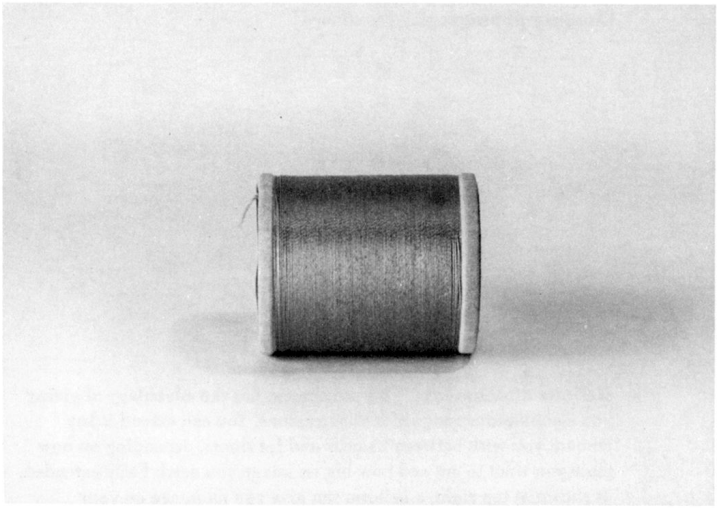
The accompanying illustrations show various methods of close-up shooting. In each case, we've photographed a spool of thread and reproduced the picture full frame to give you an idea of typical magnifications it's possible to get.





Using a long lens: Even without a close-up attachment, you can get a relatively large image of a small subject with a long lens just by moving in as close as the focusing control allows. For instance, with a 135-mm lens, the photographer was able to get the picture of the spool of thread as shown at right. You also can combine a long lens with a close-up lens, extension tube, or bellows for greater magnification than a normal lens would give with any of these devices, and to enable you to work farther away from your subject.





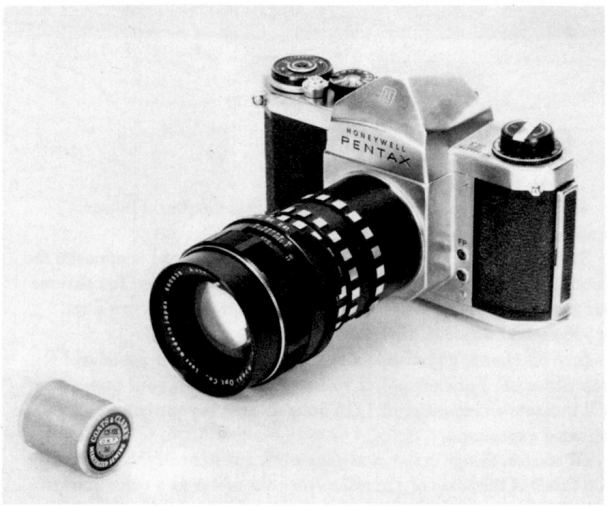
Close-up lenses: These are available in different strengths or magnifying powers. The larger the number designation of the lens, the greater the strength. Close-up lenses commonly are supplied in sets of three–a No. 1, No. 2, and No. 3–but even stronger ones are available.

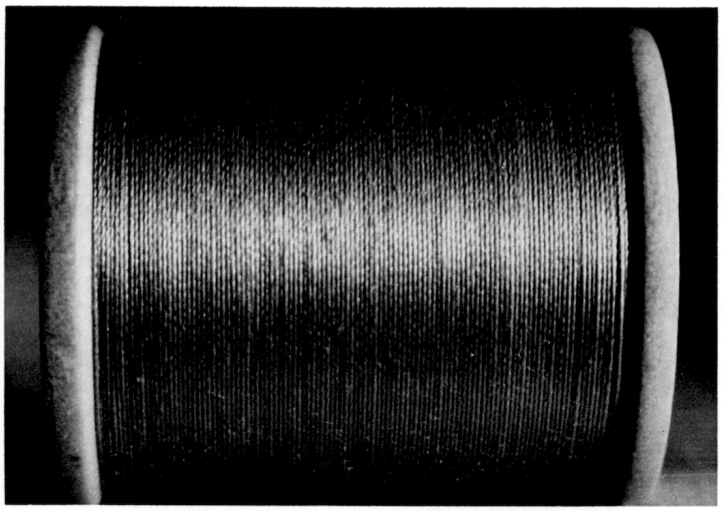
In the illustration at left, we've placed a No. 1 and No. 2 close-up lens in the foreground to show what they look like. The camera has a No. 3 lens in front of its normal 58-mm lens. The magnification given makes it possible to record a small object, like the spool of thread, in clear, sharp detail.

You can combine two or more close-up lenses for greater magnification, but some loss in overall sharpness may result. So don't do this unless you really need the larger image size. Also remember that you can combine a close-up lens with a *long lens* to get a larger image.

An advantage of close-up lenses is that they don't require you to make any increase in exposure. [With extension tubes and bellows you need to increase exposure.]

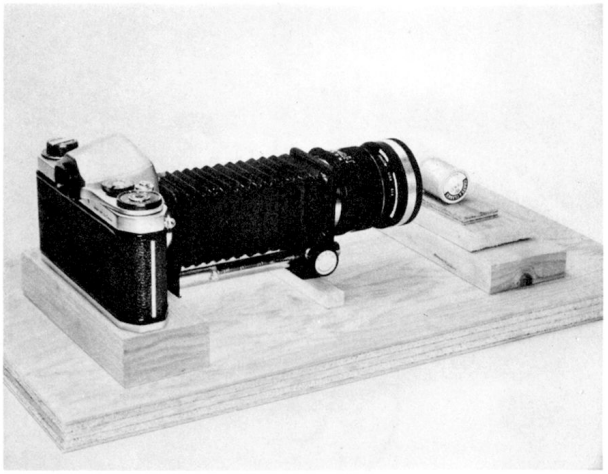
Close-up lenses are available in screw-in mounts and in standard "series" size mounts to fit series adapter rings. A convenient way to hold the latter type of close-up lens in place is with a lens shade that screws into the adapter ring. See the section on black-and-white filters in your Technical Manual for details about the series system.

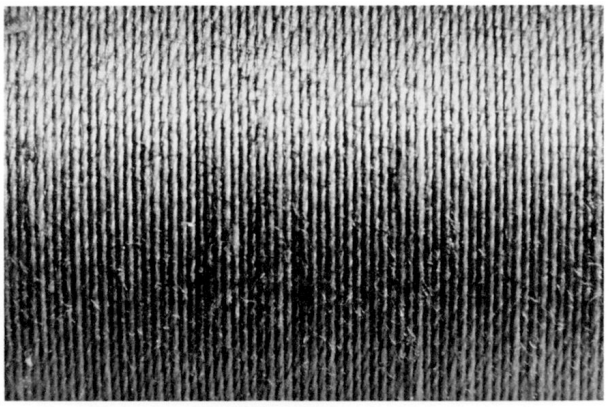




Extension tubes: Extension tubes [also called extension rings] provide a good way to extend the lens of an interchangeable-lens camera for close-up shooting. The tube is attached to the lens mount and the camera's lens then is attached to the open end of the tube. Extension tubes are available in various lengths that can be used alone or in combination, and they can give you a larger image size than it is possible to obtain with close-up lenses. In the illustration at left, for example, a combination of tubes is used to double the normal lens-to-film distance, giving an image *on the film* that is the same size as the spool itself. In the resulting picture, reproduced here without cropping, the spool nearly fills the entire frame.

By far the most convenient way to use extension tubes is with a single-lens reflex camera which permits you to view and focus on the groundglass in the usual way. Because extension tubes increase the distance the light travels inside the camera, from lens to film, an exposure increase must be made, as we explain on the following page.





Bellows attachment: This attachment has the advantage of giving you a continuous range of lens extensions. You can extend it any amount you wish between its near and far limits, depending on how close you want to get and how big an image you need. Fully extended, as shown at top right, a bellows can give you an image on your negative that is actually *larger* than life size. Photographed from an extremely short distance, the spool of thread [*bottom right*] more than fills the frame, and the threads look like strands of rope.

When a bellows is fully extended, depth of field is very shallow [only a little more than a millimeter in this example]. You must focus very accurately on the part of the subject that you want to show in sharp detail.

The simple platform shown at top right was constructed from a sheet of plywood and small blocks of wood, and serves to hold the camera, bellows, and subject steady. At very close distances, a little stand like this is sometimes more convenient and steadier than a tripod.

The extension bellows shown here is designed for use with a single-lens reflex camera. To use an extension bellows with a rangefinder camera, you need a type with a reflex viewing device, as shown on page 5 of the still-life lesson.

Increasing exposure for extension tubes and bellows

A common mistake in close-up photography is forgetting to increase exposure to compensate for the lens extension of a bellows or extension tube. Here are a number of ways to determine how much more exposure you need. Use any of these methods that you like–but be sure that you do make the necessary exposure adjustment or your picture may be badly underexposed.

Sometimes the exposure increase you need is indicated on the body of the extension tube or the focusing track of the bellows, or this information may be given by the manufacturer in an instruction sheet. Also, you can obtain easy-to-use exposure guides in dial form from most photo dealers. A formula for figuring the exposure increase needed with bellows extension is given in the miscellaneous section of your Technical Manual.

Using your exposure meter

Still another way to calculate exposure for greater-than-normal lens extension is to use your exposure meter as a kind of slide rule, with the *f* numbers standing for inches. This is a quick, convenient method that saves you from doing arithmetic. Here's how to proceed.

1. Take an exposure-meter reading of your subject in the normal way, and leave the dial set. [Let's say your meter indicates 1/60 second at *f*/11.]
2. Measure the lens extension. [Let's say it's four inches.]
3. Find the *f* number on your meter's scale that most closely matches the lens extension in inches. For example, if the lens extension is four inches, the *f* number to use is *f*/4.
4. Note what shutter speed is opposite this number. [In our example, it would be 1/500 second.]
5. Now turn the meter's dial until this shutter speed is opposite the *f* number that corresponds to the focal length of the lens. To continue our example, if the lens has a focal length of two inches you'd set 1/500 second opposite the *f*/2 mark.
6. *Now choose any lined-up combination of shutter speed and* f *stop you wish.* For example, if you want to use *f*/11, your meter now will indicate an exposure of 1/15 second. This is your correct, adjusted exposure.

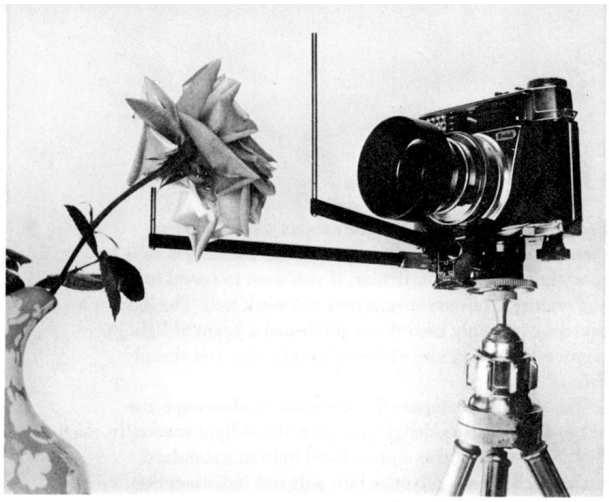
Of course, things may not always work out so neatly. However, if you think of the scale of *f* numbers on your meter as a ruler marked in inches, you can work things out accurately enough for practical purposes. For example, suppose your lens extension is five inches. There's no *f*/5 on an exposure-meter scale–but you can use a point halfway between *f*/4.5 and *f*/5.6. For three inches, use a point halfway between the *f*/2.8 and *f*/3.2 mark, etc.

Reciprocity failure

If you find you require an exposure of several seconds' or even minutes' duration, you may encounter the problem of reciprocity failure, and a possible change in colors if you're using color film. If your subject is stationary, you can shoot a number of exposures of different lengths and then select the best result. For up-to-date advice on reciprocity failure and color shift, write to the manufacturer of the film you are using.

Close-up focusing and framing with a viewfinder camera

A convenient way to use a viewfinder camera for close-up shooting is with a close-up lens and a framing finder—a device you attach to the camera to guide you in framing and focusing. Various makes are available. The one shown here has two adjustable arms that can be set at different angles and made longer or shorter, depending on which close-up lens or lens combination you use. The vertical posts at the ends of the arms show the limits of the picture area. You simply position the subject, such as this flower, between the vertical posts. If the arms are correctly adjusted, the subject will be in focus and properly framed.



Avoiding parallax error with a twin-lens camera

Here's a good, simple way to adapt a twin-lens camera to close-up photography and eliminate parallax error.

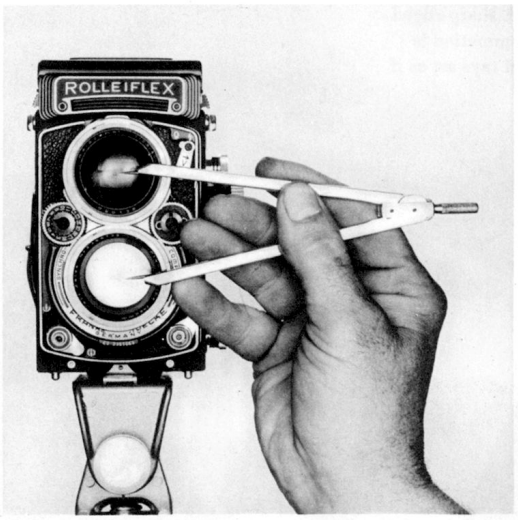
Place the camera on a tripod with an elevating head [the kind with a post you raise by turning a crank or loosening a knob]. Place a close-up lens or lenses in front of the camera's top [viewing] lens, and focus and compose.

Take a pair of dividers [you can obtain an inexpensive pair at most hardware or art supply stores] and measure the distance between the centers of the two lenses, as shown in Picture 1. *Be very careful you don't scratch the lens coating when you do this.* You don't need to actually touch the lens to make an accurate measurement.

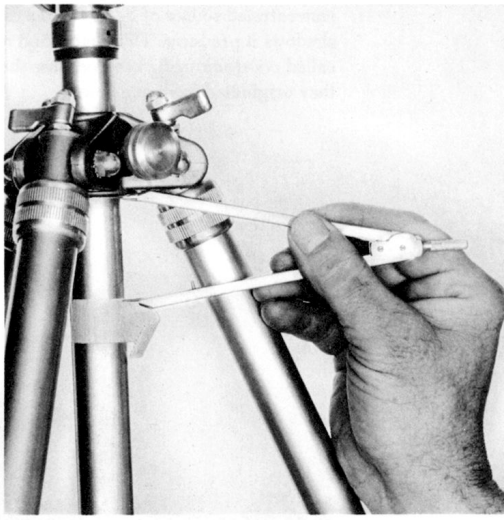
Now raise the camera by exactly this same distance, using your dividers as a guide, as shown in Picture 2. This puts the bottom [taking] lens into the position formerly occupied by the viewing lens. [You can put a small piece of masking tape on the tripod post to mark how high you should raise it.]

Transfer the close-up lens or lenses to the camera's taking lens and shoot your picture.

This method is effective only if your camera is in a straight up-and-down position, or practically so. If it is tilted off the vertical more than just a few degrees, then raising or lowering it on the tripod moves it closer to or farther away from the subject. To be on the safe side, it's a good idea to check the back of the camera with a small spirit level just to be sure it is vertical.



1 Use a pair of dividers to measure the exact distance between the centers of the upper and lower lenses.



2 Measure the same distance on the post of your tripod, mark with a piece of tape, and raise the tripod this much before shooting.

Without parallax correction, you'll cut off the top of the subject like this when using a twin-lens camera for close-up photography.

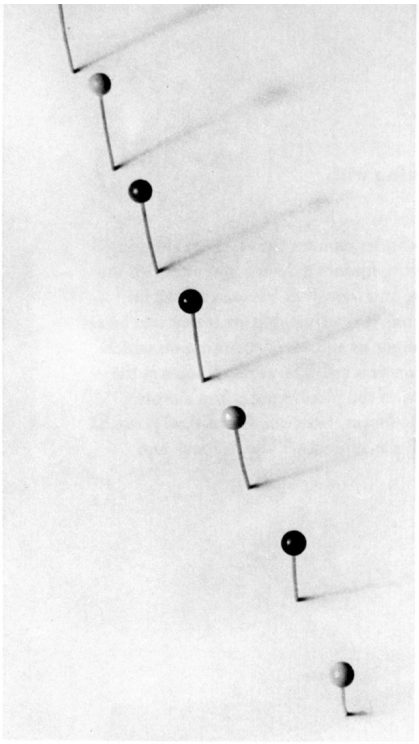
Using the method explained here, parallax error is avoided, and the subject is properly placed in the picture area.

Lighting for close-ups

Because of the small size of the subject and the close shooting distance, lighting for a close-up sometimes calls for special methods. In particular, if you want to reveal form and texture, ordinary means may not work well. The light sources commonly used throw too broad a beam of light in relation to the tiny size of the subject to give you sharply defined shadows.

For example, compare the two pictures showing a row of pins. Both were sidelighted with a single light source. In Picture 1 the light was a photoflood bulb in a standard twelve-inch reflector. Notice how soft and indistinct the shadows of the pins are. This is because the light source is huge in comparison with the tiny pins, and light rays from the edges of the reflector tend to fill in the shadows from the sides.

In Picture 2 the light source was bright sunlight. The sun –many millions of miles away– acts like a very small, concentrated source of light. See the distinct, sharp-edged shadows it produces. This sharp kind of illumination is called *point-source lighting* because the light rays act as if they originated from one point.



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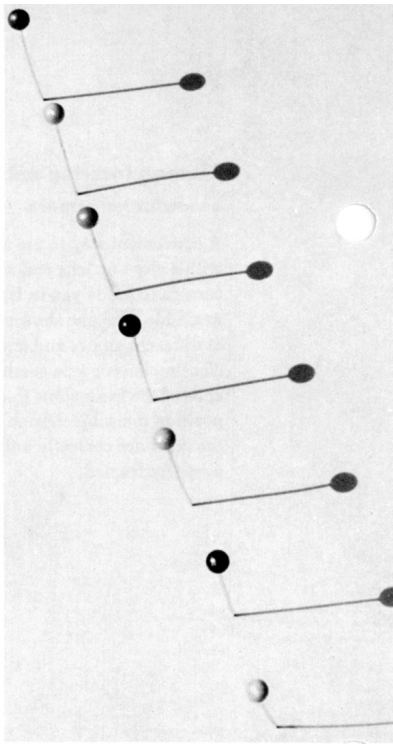

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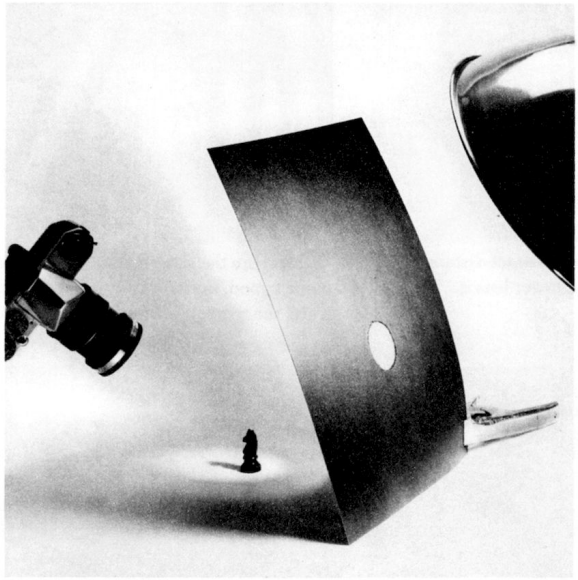
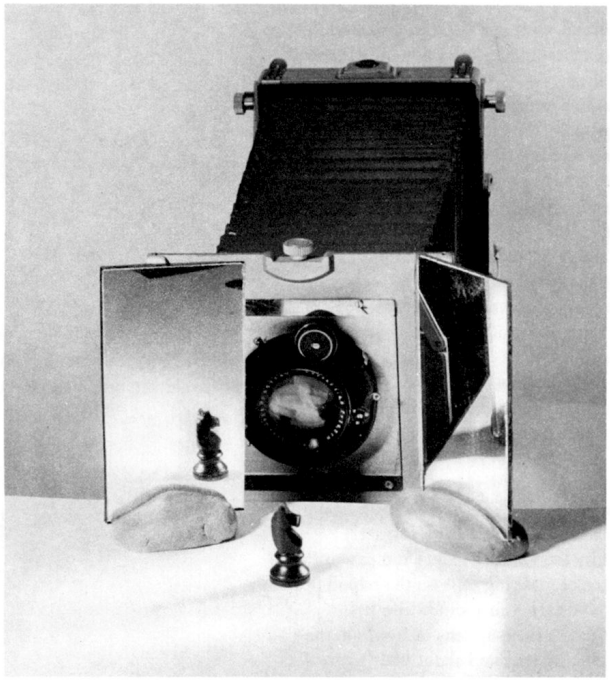


Using a cardboard with a hole

One simple way to get a very narrow, concentrated beam of light for close-up shooting is to cut a hole in a sheet of cardboard and shine your light through it. For work on very small objects you may find this method is easier and gives you better control than a spotlight with a snoot. In the setup shown, the cardboard is held in position by a spring clamp [available at hardware stores]. Cut the hole to any size you wish and move the cardboard and light around to get the most suitable direction of light. To sharpen the shadows even more, use a projection bulb in a blackened reflector, as explained on the opposite page.



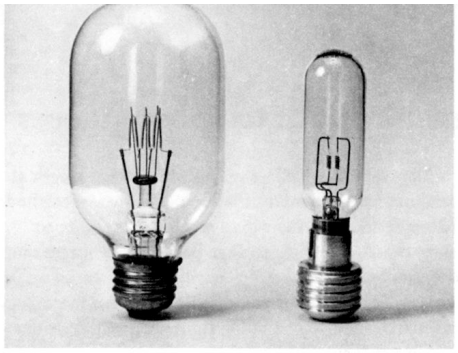
Using mirrors

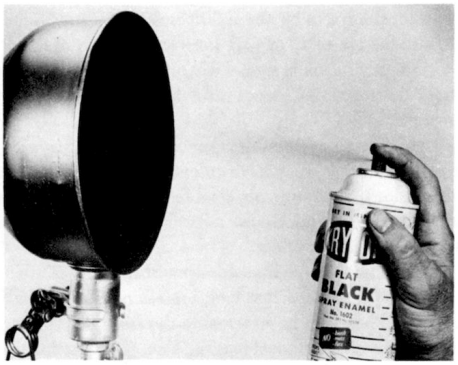
Sometimes the very short subject-to-camera distance may not give you enough working room to position your lights without blocking the lens or creating undesirable shadows. Using a long lens will let you move farther back and still get the same image size. But if things still are too cramped, here's another method to try: Place small mirrors so that they reflect the light onto your subject. The advantage of this arrangement is that it lets you place your light source a comfortable distance from the subject. Here a floodlight [not visible in the setup] was placed to the left.

Modeling clay can be used to hold the mirrors upright, as shown. You might use one, two, or three, depending on the effect you want. Move them around and experiment until the highlights and shadows are right. Place the mirrors so they block direct light from entering the lens.

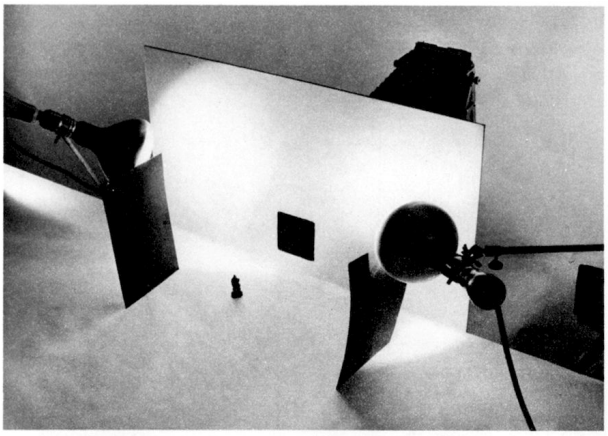
How to make a 'point source' lighting unit

Here's a good way to get a very intense, concentrated light to emphasize the texture of small objects. You use a *projection* bulb [the kind in many movie and slide projectors] in a reflector whose inner surface is painted black. This combination gives a quality that is close to that of a "point source" of light, creating a crisp shadow and strong contrast, as shown in the picture of the chess piece below.





At top are two typical projection bulbs. The tiny filaments of these bulbs provide a very sharp light. The larger bulb has a standard medium screw base that you can screw into the socket of a reflector. The smaller bulb [giving an even more concentrated light] has a single contact bayonet base. As shown, this type of base can be fitted into an adapter of the type ordinarily used to adapt a No. 5 or 25 flashbulb to a screw-in reflector. To make your lighting unit, you can use any standard reflector with a screw-in socket. Spray the inside surface of the reflector with flat black paint, using a spray-on can of paint, as shown. Then insert the projection tube and you're ready to shoot.



Bouncelighting for close-ups

With some subjects you may want a relatively soft, even lighting rather than sharp shadows. Here's an easy way to get it.

Take a large sheet of white cardboard and cut a hole in it about the size of your camera's lens shade. Clamp the cardboard to the edge of your working surface. Position your camera behind the hole so it sees through it. Keep the lens as far back as you can without cutting off the camera's field of view. Be sure to use a lens shade.

Now position two photofloods as shown. They should be aimed at the white cardboard so light will be reflected onto your subject. Place the lights far enough from the hole and at an angle so direct light doesn't shine into the lens. If necessary, use pieces of cardboard as gobos to keep direct light from striking the subject, as we did here. Compare the much softer quality of the resulting picture at right with the sharply lighted effect that the projection bulb gave above.

Photography with telephoto lenses

Photography with a very long lens–say one with a focal length at least five or six times longer than normal–requires special methods for best results. These lenses, with their long reach, their ability to magnify a distant detail, and their strange power to compress the space in a scene, can help you take very exciting pictures, as we've demonstrated many times. Even if you don't own one of these giants now, you may want to acquire one in the future. So let's consider some good ways to use them.

In the first place, how long is a "very long" lens? For practical purposes, we can consider it to be about 300 or 400 mm for 35-mm camera lenses [and the majority of very long lenses today are designed for 35-mm use]. This is a somewhat arbitrary dividing line, but it's just about the maximum length most people can hold and get acceptably sharp pictures.

To keep the lens as small as possible, very long lenses often are of true telephoto design; that is, they have an optical system that gives them a focal length longer than the physical length of the lens. Some very long lenses use a special mirror, or a combination of mirror and lens elements, to give a similar effect.

Available for some noninterchangeable-lens SLR cameras are *monoculars*–special optical units that look something like one-half of a pair of binoculars. These can be attached to the front of camera lenses to increase their effective focal length. Also, it is possible to adapt some makes of binoculars and telescopes to a camera.

Any very long lens is best used with a through-the-lens viewing and focusing system, such as that of a view or single-lens reflex camera. And, regardless of the type of lens, for focal lengths of greater than 300 mm the following advice generally holds true.

First, and most important, *use a tripod or tripod substitute.* Any unsteadiness of the camera will be greatly magnified when you're using a telephoto lens. If you must hold the camera, brace yourself as firmly as possible and use the fastest shutter speed practical.

Focus with particular care. Depth of field is relatively shallow with very long lenses, even when your subject is at a considerable distance.

If you want a clear, sharp picture, beware of atmospheric haze. The best control you have over this is to save your telephoto shooting for a clear, bright day with low humidity. Haze that would not be objectionable in a picture taken with a normal lens can obscure details and flatten out the contrast in a distant scene photographed with a telephoto lens. Also, avoid shooting across fields, roads, or other open land surfaces on a hot day–rising heated air may distort the picture.

Filters for telephoto photography

A dark yellow or orange filter can help cut through bluish atmospheric haze when you're shooting in black and white. With color film, use a skylight or UV filter to absorb excessive ultraviolet radiation that may cause a distant scene to look too bluish.

You'll need to be careful about focusing when using filters with a telephoto lens. A filter causes a shift in focus. This shift is negligible with lenses of approximately normal length–but with very long lenses it is magnified and can cause unsharpness if you don't correct for it. Always focus with the filter in place. If you later remove the filter, be sure to refocus.

A glass or laminated filter big enough to be used in front of a long lens is quite expensive. Therefore, many long lenses include a slot or ring for the filter at the *rear* of the lens, where its diameter is less. If your lens doesn't have a rear filter holder, then tape a gelatin filter in front of the lens. Gelatin filters are relatively inexpensive, but you'll have to handle them with great care–they are easily scratched.

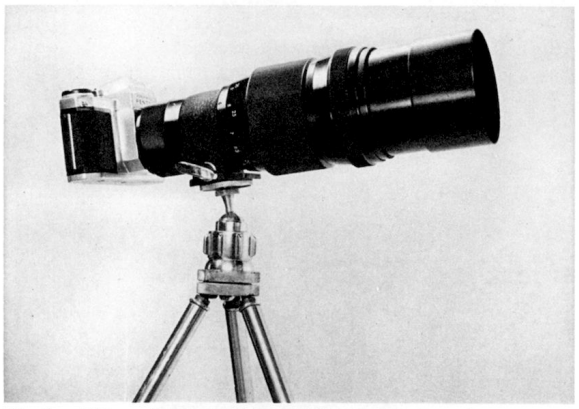
No filter will cut through fog, smoke, or smog. If you live near an urban area where smoke and exhaust fumes build up during the day, it's best to do your telephoto shooting early in the morning, when the air is at its clearest.

You may not always want a clear day, however. Sometimes you can achieve lovely effects shooting through haze, smoke, rain, or snow. The setting sun, for example, often is best photographed when veiled and softened by haze.

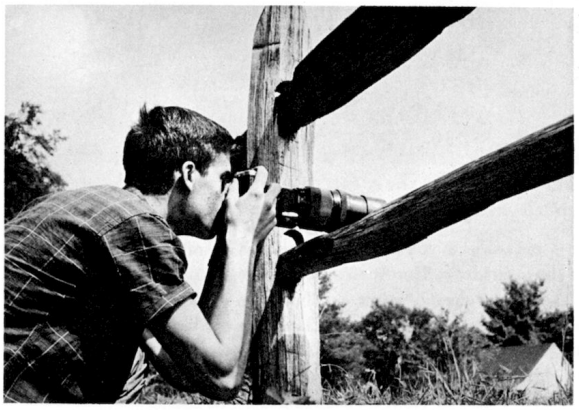
Increasing contrast

Lack of contrast is a common fault in telephoto shots. For a crisper, more contrasty result, use a slower film [which tends to be more contrasty than a faster one], and adjust exposure and development to give your picture more snap. Above all, avoid overexposure. Lean toward slight underexposure, and give a bit more development than normal.

When shooting in color, choose a brand of film you know tends to give strong contrast and full color saturation. If your results with normal exposure seem too flat and pale, try reducing your exposure about half a stop.



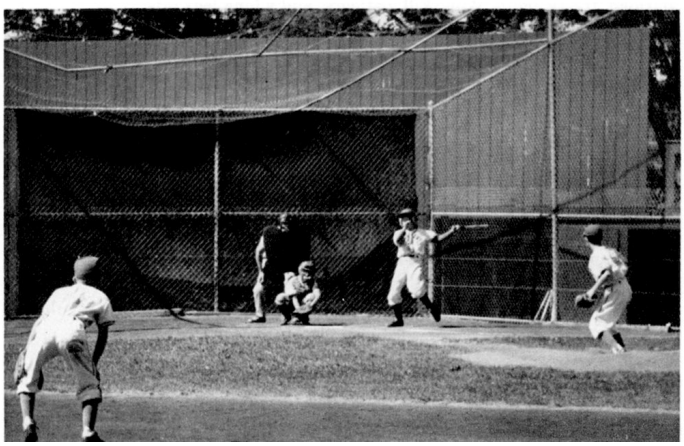
Here's a 300-mm lens on a 35-mm SLR camera. As with many longer lenses, the lens mount itself has a tripod socket, providing better balance than if the camera itself were screwed into the tripod. The "ball-and-socket" tripod head shown here may be more convenient than a tilting pan head with a handle, since the overhang of the camera and lens makes it awkward to reach the handle.



If you must hand-hold a very long lens, use any good support you can find. Here the photographer is resting the lens against a fence rail while photographing horses at the far side of a riding ring. If you get the lens and camera properly balanced, it's much easier to hold them steady. Use the fastest shutter speed practical, too–in this case it was 1/1,000 second.

To increase the contrast and apparent sharpness in a telephoto shot, use strong sidelighting, as we did in this picture, taken with the 300-mm lens previously shown. A dark yellow filter helped cut through the slight haze. The film was a slow, thin-emulsion type–frequently a good choice for telephoto shooting in black and white because of its sharpness and contrast.

With a very long lens you can make the sun appear large in relation to foreground objects, as Alfred Eisenstaedt did in this view of the Manhattan skyline. Light haze is desirable to soften the glare and show the circular shape of the sun. Ideal conditions most often occur with the sun low in the sky, just after sunrise or before sunset. [Courtesy *Life* magazine, ©Time, Inc.]



Zoom lenses for still photography

A special breed of long lenses are the "zooms." A zoom lens is a lens with a focal length that is continuously variable between two limits. With a zoom lens you can rapidly switch from a long shot to a medium shot, a medium shot to a close-up, or any point in between without changing lenses. This is a particular advantage when you are covering sports or any other action subject from a fixed position. A zoom lens also is useful in color photography on transparency film because it lets you frame the picture precisely without changing your position.

Zoom lenses vary widely in price and quality. The best makes give excellent results. However, it is generally true that a top-quality lens of fixed focus will produce a somewhat sharper picture than any zoom lens at the equivalent focal length.

The versatility of a zoom lens is demonstrated in the two pictures at left, both taken from approximately the same camera position in the outfield during a Little League ball game.

To show an overall view with the pitcher, batter, and first baseman [*top*], we shot with a 35-mm camera and a zoom lens set at its shortest focal length of 90 mm. To show the action at home plate in closer detail [*bottom*], we simply changed the zoom lens to its longest focal length–200 mm. To get the same coverage without a zoom, we'd have needed to change our shooting position or use two lenses.

A very long lens or lens accessory can be a great help in photographing subjects that are easily frightened away. For example, to make this shot in the Florida Everglades, Alfred Eisenstaedt used a 300-mm lens. It enabled him to get a large, clear image of the bird at a considerable distance.
[Courtesy *Life* magazine, ©Time, Inc.]

Nature photography

Nature has a boundless supply of good picture subjects. With the aid of a camera you can "collect" rare birds, lovely flowers, shy or fierce animals, or strange reptiles in the enduring form of photographs–and without harm to the original. The world of nature is filled with great visual beauty as well as scientific interest. In fact, the appeal of nature pictures is so strong that some photographers make a specialty of this kind of shooting.

Nature photography requires some special skills because many subjects are too shy, too small, too distant, too fragile, or too fierce to be photographed in the usual way. Two special methods already discussed in this lesson–close-up and telephoto photography–are particularly useful. Here we'll teach some additional methods and show you how to make some simple, inexpensive accessories.

What you need

You could fill a good-sized room with all the equipment devised for taking nature pictures. Many of these items are valuable indeed, but you can do much with the following minimum equipment:

1. *A quick, convenient means for taking close-up pictures of small subjects such as insects, flowers, small reptiles and animals, etc.* This might be a rangefinder camera with a focusing frame, a single-lens reflex with extension tubes, a press or view camera with a long bellows, or any other equipment that lets you accurately frame and focus on a close-up subject without stopping to measure the distance. You need to be able to work quickly because often your subjects won't stay still very long.

2. *A very long lens–say at least 300 mm–for photographing birds and larger animals from a distance.* To get good pictures of these subjects, a really long lens or a monocular attachment serving the same purpose as a long lens is practically a necessity. Otherwise, you run the risk of scaring away the subject by coming too close.

Finding your subjects

The simplest way to go about shooting nature pictures is to take a walk with your camera through the woods or fields and photograph what you see. The more you know about the habits of different birds and animals the more likely you are to find them and get good pictures. Experience in hunting and stalking can be helpful, too, in approaching shy species.

The first rule of the woods is *move quietly* so as not to scare away the wildlife. Avoid stepping on dead branches that may snap loudly, and don't walk on dry leaves, or noisily push branches aside.

When you see a bird or animal you want to get closer to, don't rush up to it–freeze in your tracks. Quick motions, like noises, are alarming. But if you stand stock-still for a time–even though you're in plain sight–a bird or animal may eventually decide you're harmless. Of course you have to move a little to take the picture. But do so very, very slowly and quietly. If the bird or animal becomes alarmed, freeze again. With skill, patience, and a long lens it is possible to take excellent wildlife pictures this way.

Another good approach is to hide in a place that birds or animals frequent. You might conceal yourself behind branches or in tall grass. Or you might build yourself a blind, as hunters sometimes do. Use leafy branches, bunches of long grass, or other natural materials to make a screen which hides you but lets you see out. Then sit and wait. Excellent places to set up a blind include feeding, mating, and nesting grounds, places where animals drink, and entrances to burrows.

Rather than shooting from a blind, you might want to set your camera up in a good spot, focus it on a place where a bird or animal is likely to pass, and operate it from a distance, using an extra-long

cable release, or–in the case of some press cameras–an extension cord that enables you to trip the shutter when you press the button on a flashgun's battery case. Some cameras can even be equipped with a motorized back that operates by radio control.

You can easily rig a hair-trigger shutter-tripping device, as we demonstrate later. This device can be operated by a string or thread. Either you wait in concealment and trip the shutter, or you can arrange the thread so the bird or animal brushes against it or moves it and takes its own picture. For instance, you might run the thread across the front of an animal's burrow or tie it to a small piece of bait.

Lighting

Daylight is the most practical and convenient light source to use with many types of nature subjects. However, conventional flash or electronic flash can be useful, too, when you need extra light or want to stop fast action.

The very high speed of electronic flash is particularly useful when photographing animated nature subjects. With it you can catch birds in flight, freeze the motion of fluttering wings, and make sharp pictures of quick-moving animals.

Electronic flash offers another important advantage over flashbulbs in nature work–you don't have to replace a flashbulb after each shot. Thus you can leave a lighting setup undisturbed while making a number of shots with a long cable release or other remote-control device.

A more refined type of camera "trap" can be rigged with an electronic-flash unit wired to be tripped by an electric eye of the type used to open garage doors, etc. These electric eyes are available from some specialty electrical supply houses. With these devices, a small beam of light is directed at a light-sensitive photoelectric cell. When anything–including a small bird or animal–breaks the beam of light, the camera shutter is tripped and the flash is fired.

Watch your backgrounds

Be particularly careful of backgrounds in nature photography, and try to keep them from being cluttered and distracting. Also avoid tone mergers between your subject and its surroundings. In nature shooting, this often is difficult because of the tangle of branches, twigs, and leaves against which you may have to shoot, and because the coloration of some birds and animals blends into the foliage.

Selective focus can be a valuable aid in controlling backgrounds. Telephoto and close-up photography are alike in giving you relatively shallow depth of field, and often you can make this work to your advantage. Focus sharply on your subject, and blur objects in the background so they appear pleasingly soft and muted. Shooting down to show the subject against the grass or the ground, or shooting up to use the sky as a backdrop, can simplify your picture still more.

Because of their realism, the backgrounds existing on location usually are the most pleasing for nature photography. With a subject such as a plant, however, it is possible to supply your own background –which is sometimes the only way to make the subject stand out clearly. You will find a sheet of white blotting paper is handy for this purpose.

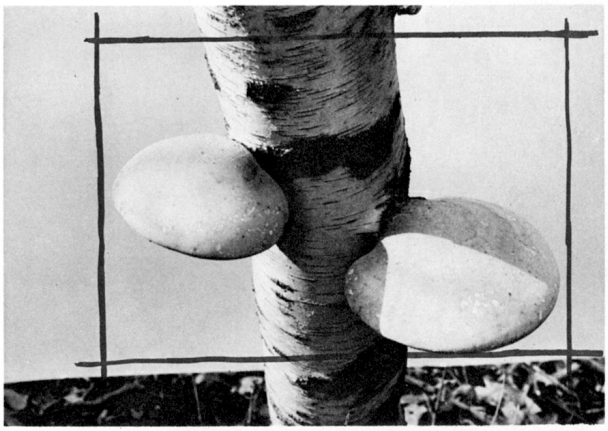
Two useful special accessories

Motorized back: Models are available for a number of cameras. They are spring-powered, electrically operated, or powered by CO_2 gas cartridges. They enable you to make a series of pictures in rapid sequence. Also, when you want to operate your camera from a distance, this device makes it possible to shoot a number of pictures without approaching the camera to advance the film manually, thus frightening the animal away.

Radio remote control: These units are available to work in combination with a motorized back. You can set up your camera at a considerable distance from yourself–say near a nest or burrow–then activate the motorized back by radio signals from a small portable transmitter. There is no need for connecting wires or a long cable release.

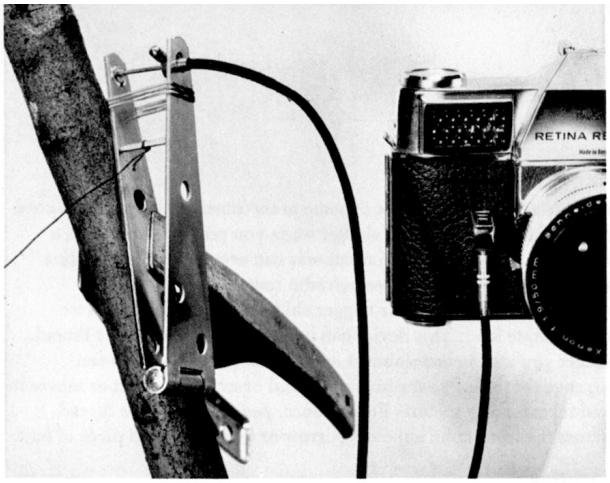
Close-up equipment and shooting methods that make it possible to work with great speed are needed for many nature subjects. To take this amusing portrait of two frogs, Jackson Hand used a 4x5 single-lens reflex with its bellows extended.

Often you can soften a busy background by shallow depth of field, as the photographer did in this close-up of fungus growing on a birch tree. Use natural backgrounds whenever you can–they add a pleasing, authentic look to your pictures.



If you want a completely bare background, clamp or prop a piece of cardboard or a blotter behind your subject, as we did here. If your goal is to make a clear, matter-of-fact shot of a particular species or detail rather than an aesthetically pleasing picture, this may be the best approach. [The crop marks show how the edge of the cardboard could be eliminated in making an enlargement.]

A remote-control shutter tripper



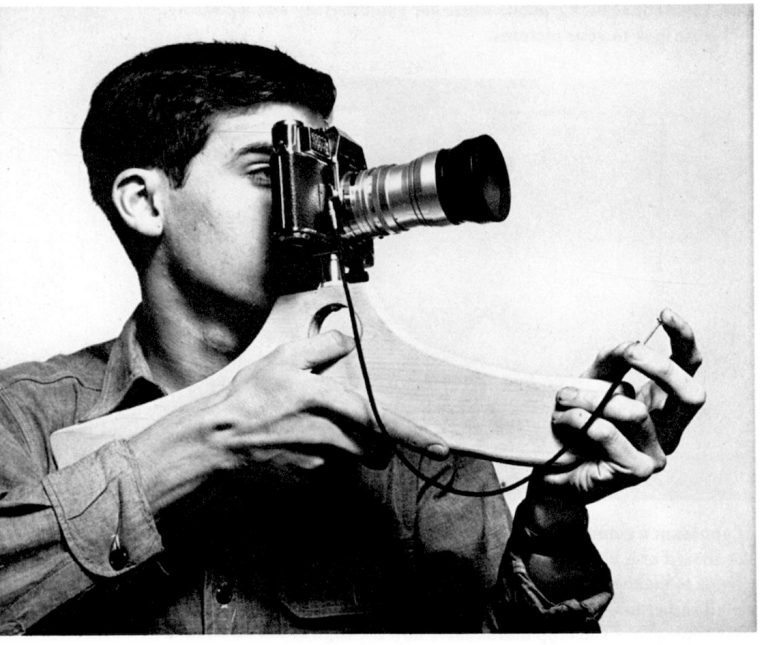
To trip your camera's shutter while you yourself are at some distance from it, here's a simple rig that works well. You need the following items: a spring clamp, a cable release with a setscrew, a three- or four-inch strap hinge, a couple of strong rubber bands, a wooden matchstick, and a length of fine string or strong thread.

Place your camera on a tripod or other support, and then set up these items as shown in the picture. The spring clamp holds the hinge to a tree branch, fence post, or any other support conveniently near your camera. Remove the setscrew from the cable release, put the plunger end of the release through the end hole in the hinge, and replace the screw. [This step is necessary to keep the plunger in position.] Place the rubber bands around the jaws of the hinge; the bands should be tight enough to pull the jaws firmly together. Now prop the jaws apart with the matchstick, to which your thread is attached. Black thread is good because it is less conspicuous.

When properly set up, this shutter tripper is a very sensitive device. Just a slight tug on the thread is enough to pull the little stick out of position, allowing the rubber bands to close the jaws of the hinge. This, of course, activates the plunger of the cable release and takes the picture.

Attach the free end of the string to a piece of bait and you have a means of letting an animal take its own picture. The photograph of the raccoon was made in this way. The camera was prefocused on the bait. When the raccoon picked up the bait, the device was activated and the shutter clicked. If you want to leave a camera "trap" like this overnight, set up a flash unit with the bulb in place. Tape a handkerchief over the flashbulb reflector to cut down the light if the reflector is located close to the bait.

Making a camera 'gunstock'



For taking telephoto pictures of moving animals or birds on the wing, a gunstock type of support that fits against your shoulder is extremely useful. It helps you hold the camera steady while panning with the subject, or when making fast shots.

You can buy camera stocks to fit various makes of cameras. But you can easily make a very serviceable one yourself. You need a 1x10 pine board [clear pine without knots is best] about two feet long. Cut it to approximately the shape of the stock in the accompanying illustration. You'll find a plan for this stock in the "things to make" section of your Technical Manual, but you might want to modify this plan to suit your own needs. Make the stock longer or shorter, depending on the type of camera you're using and the length of your arm. The important thing is for the unit to fit snugly against your shoulder and for the "hump" to be made so that your eye meets the camera viewfinder comfortably.

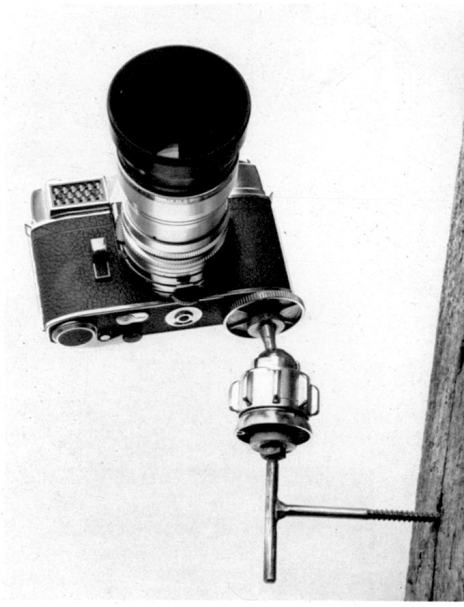
Bore a hole so you can mount a 1/4-20 machine screw [or stove bolt] at the top of the hump. This screws into the camera's tripod socket. Your camera's tripod socket may be located so that when the camera is mounted on the gunstock the viewfinder may not be in a comfortable, easy-to-use position. To solve this problem, you can obtain an accessory sliding camera platform. [Your photo dealer may be able to order one for you if he doesn't carry it in stock.] The platform has a threaded socket in its base by which the unit can be attached to the gunstock. Its sliding top in turn has a screw which attaches to the camera's tripod socket. You can move the slide until the camera's viewfinder is in a comfortable position and then lock the slide in place. The accompanying picture shows a platform in use.

By using a cable release, as demonstrated, you can press the stock firmly against your shoulder, and there's less chance of movement when you trip the shutter.

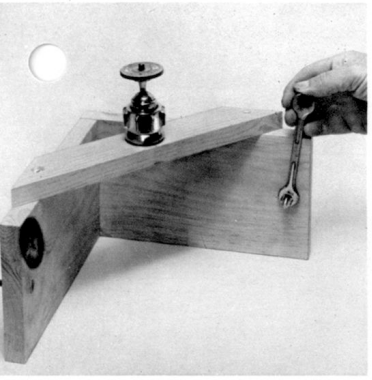
What to do when you don't have a tripod

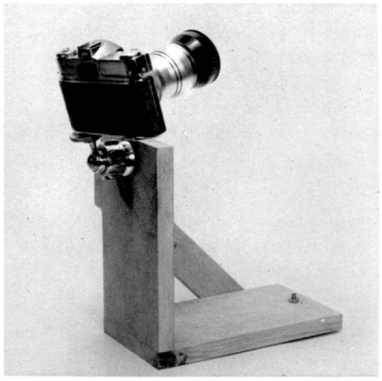
For best, sharpest results, you need a firm support for your camera when taking long-lens or close-up pictures. However, it's not convenient–and it may not even be possible –to carry a tripod with you on field trips into rough country. Here we show you a number of good tripod substitutes for nature photographers. Some are commercially available, and others are easy to make yourself. They all can be very useful whenever you need to save space and weight.

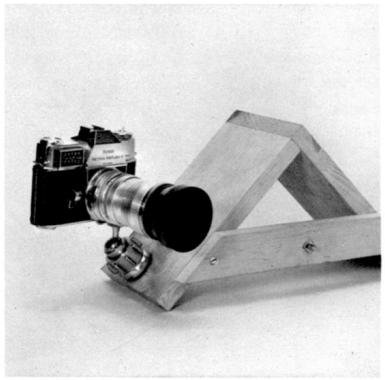
Tripod clamp: This is a highly versatile item. You attach your camera to the clamp [using the camera's tripod socket], and then clamp the device to any convenient support, such as the branch shown here. You can buy tripod clamps like this at a camera store or make one yourself by welding a 1/4-20 machine screw to the end of a C-clamp. [This machine screw is the right diameter and has the right threading to fit any standard American tripod socket.] If you're not equipped to do welding, you can have it done by a plumber or auto repairman.

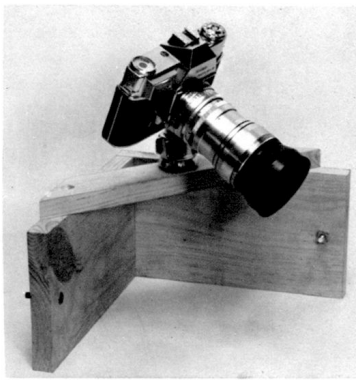


Screw-in camera support: A T-shaped screw-in camera support like this can prove quite useful. Weld a long 1/4-20 bolt across the top of a 1/4-inch lag screw. Both these items are carried at most hardware stores. The threaded end of the bolt is screwed into a standard ball-and-socket tripod head, which in turn is attached to the camera. The device can be firmly screwed into a pole, post, railing, tree trunk, or large branch to hold your camera at the desired height.









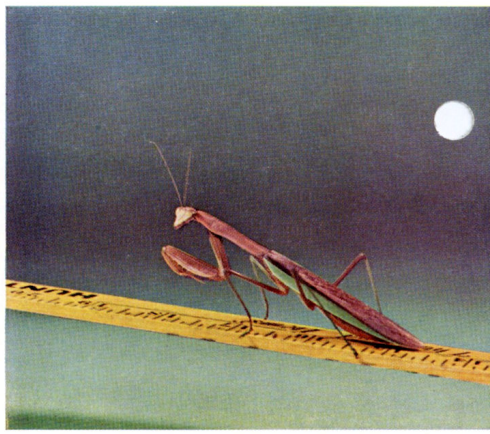
Triangle support for close-up shooting: Here's a very easy-to-make little support that can be extremely convenient for close-up shooting. Take two 12-inch lengths of 1x4 pine stock and nail or screw them together to form an "L." Then nail or screw a cross brace of 1x2 pine to them, as shown in the first picture. Drill one 1/4-inch hole through the center of the brace, and then drill two more, each about an inch in from the end of each board. Insert a 1/4-20 machine screw through each hole and secure it in place with a nut. Enough of the bolt should protrude so you can attach a ball-and-socket tripod head to it. [In the first picture the tripod head is on the bolt in the center of the brace.] The next three pictures show how you can obtain a high, low, or intermediate camera position, depending on how you place the stand and where you attach your camera. The stand itself can be put on the ground, wedged in the crotch of a tree, rested against a stone, or leaned against a stump.

Nature photography in color

Although excellent nature photographs can be made in black and white, many wildlife subjects lend themselves especially well to color. Color often tells us more about the subject and its surroundings, and reveals a beauty not visible in a black-and-white shot. Flowers, autumn leaves, and brightly colored birds and insects are particularly good subjects for color photography, but don't overlook the more muted but equally lovely hues of foliage, dead leaves, fungi, and protectively colored birds, animals, and reptiles. On this page are some fine examples of nature photography in color by Walter Chandoha, all made within a few hundred feet of his New Jersey home, with suggestions on how to handle typical problems you may encounter in this kind of work.

The photographer found this box tortoise in the woods near his home, and photographed it on daylight type transparency film with a single-lens reflex. Although it's capable of moving faster than you might think, a tortoise is a relatively easy animal to get to "pose" for you. This is a matter of maneuvering the creature into a place where the light and background are good, and then getting it into sharp focus. Notice that Chandoha shot almost from ground level to make the tortoise seem larger and more important. Shooting hand-held so he could maneuver more quickly, the photographer used a relatively fast shutter speed, 1/250 second, sacrificing depth of field but giving the animal's curious head and expression unusual prominence.

Chandoha discovered this young hawk lying exhausted in his yard, where it apparently had been chased by an attacking band of bluejays. Before the bird recovered its strength and flew away, Chandoha was able to make this striking shot. Shooting from ground level, he used a long lens on a 4x5 reflex camera. Here the very shallow depth of field works much as in the turtle picture, throwing the background far out of focus and making the bird's profile stand out distinctly. With most birds, a profile view usually is more interesting than a head-on shot.



Catching a praying mantis in his garden, the photographer brought him into his studio and placed the insect on a ruler. The lighting was from four electronic-flash units arranged in an "X" setup as described in Lesson 11. Colored paper was used for the background. A mantis is a fairly slow-moving insect and is easy to control. When photographing livelier kinds of insects in a studio, put them in a box in a refrigerator for a short while before you shoot. This will make them sluggish and easier to photograph.

The delicate yellows of these "jack-o-lantern" fungi help make an attractive, interesting picture. Because the subject was inanimate, the photographer was able to use a slow shutter speed and stop down to *f*/22 for great depth of field. Notice how his choice of a contrasting background helps the composition. For a low-angle close-up picture of this kind, the pyramid-shaped camera support shown on the previous page would be ideal.

Photographing flowers

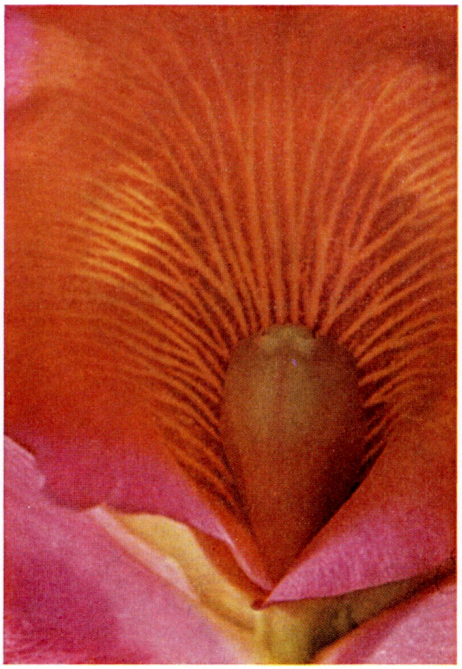
Flowers are among the most appealing of color subjects. It's easy to take good pictures of them by applying close-up shooting techniques to get a large, detailed, frame-filling image. Here are a few additional tips to help you achieve satisfactory results.

In calculating exposure, give white or very light flowers about a stop less exposure than normal–they reflect a lot of light. Give dark flowers about half a stop more than normal. To get a basic exposure reading, which you can adjust as you see fit, place a neutral gray test card close to the flowers and take your reading from the card.

Pick a calm day for flower photography. Even a slight breeze can cause flowers and foliage to vibrate. An assistant can be helpful in shielding the flowers from the wind with a large sheet of cardboard, a coat, or any other windbreak. Or you can tie the flowers in place, as shown in an accompanying illustration.

Colored backgrounds can improve a flower picture. For close-ups, you can use colored construction paper [available at dime stores]. You might pick a hue darker or lighter than the flowers, or of a contrasting color to make them stand out more strongly. Or you might pick a variation of the same hue for a closely related color scheme.

[*Top right*] These pink roses were photographed in a garden by sunlight. To achieve a harmonizing but darker background, Victor Keppler placed a sheet of red cardboard behind them. To give the flowers more sparkle, he sprayed them lightly with a mixture of glycerine and water, using a small atomizer.
[*Right*] To keep a flower from swaying in the breeze, use this method. Drive two sticks firmly into the ground a few inches on either side of the flower. Then tie the flower's stem to each post with twine. [Be careful not to injure the stem, which may be quite fragile.] Compose or crop so the string won't show.



Extreme close-ups of details within flowers can be as lovely and exciting as longer views. These three photographs of orchids were taken by Alfred Eisenstaedt by daylight in a greenhouse. He used an accessory bellows on his 35-mm camera to move in very close and show the color and design of the petals.
[Courtesy *Life* magazine, ©Time, Inc.]

How-to photography

The basic purpose of how-to photography is to *instruct*–to show the viewer how to carry out a procedure, such as building a bird feeder, making a cast with a spinning rod, or assembling a hi-fi set. Since words plus pictures often can teach much more clearly and in greater detail than words alone, how-to photographs are in demand. General magazines, women's magazines, trade journals, and hobby publications, as well as publishers of instruction manuals and "how-to" books, are among the ready markets for good instructional pictures.

Effective how-to pictures can easily be produced with the aid of the photographic techniques we have demonstrated in this Course. However, there are some special principles to keep in mind when taking this kind of picture.

The most vital thing to remember is that *the how-to photograph must make its point as clearly and explicitly as possible.* It needs to show little, if anything, beyond the bare minimum of details required to illustrate this point. Yet it must include enough for the viewer to understand important relationships. In other words, a good how-to picture shows neither too much nor too little.

Suppose, for example, that you are shooting a picture to demonstrate a method of threading a new type of sewing machine needle. Obviously, you need to get close enough to show the needle clearly. However, you shouldn't move in so close that a viewer can't relate the needle to the machine as a whole. You'd have to find a good compromise position that does both, or perhaps make two pictures: an overall shot of the machine and a close-up of the needle.

Naturally, many procedures are too complex to show in just a single picture. It takes a series of photographs to tell the story. Thus you might think of how-to photography as a specialized kind of photojournalism.

To tell your instructional story well, you first must thoroughly understand the procedure yourself. You should be [or make yourself] an expert on the subject, or else work closely with someone who has an expert's knowledge.

Before shooting, break down the how-to procedure into its different steps and arrange them in logical order. It's advisable to make a shooting script so you can be sure you show everything that needs to be pictured. Jot down any special points–details to emphasize, tips you want to demonstrate, products or tools that should be identified, alternate methods that ought to be pointed out, etc. Remember, too, that some steps don't have to be shown at all, but can be adequately explained by a few words in a caption. For example, if one step in building a workbench is "Now cut three more legs like the one we've just shown," obviously you don't need to illustrate this.

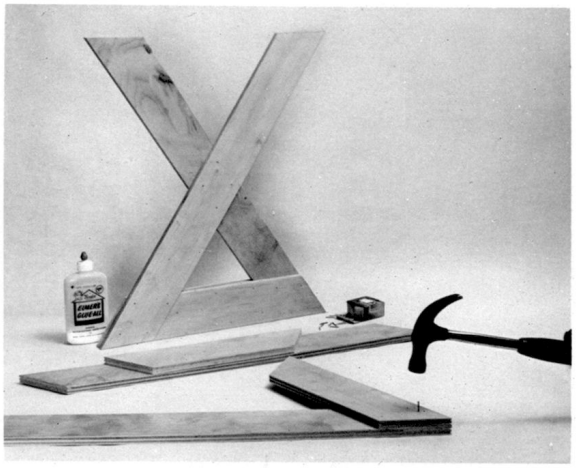
Good how-to pictures can be shot with very simple means. For detail shots–the heart of any instructional picture story–use a small tabletop setup like the one described in the still-life lesson. A common fault in how-to pictures is a distracting, confusing, or ugly background. Unless you can find a convenient bare wall, create your own background. The familiar sweep of white seamless paper is ideal for many how-to pictures.

Bad lighting is another common fault. Be particularly careful to avoid harsh shadows that "chop up" the picture and obscure significant details. Use any of the many methods we've demonstrated for getting relatively soft, even lighting, with just a touch of modeling.

On the following pages we reproduce a complete set of how-to shots on a typical subject–how to put up a shelf unit–prepared for a magazine. These pictures show some of the problems you may encounter in how-to photography, and methods for solving them. We also show you the shooting script the photographer prepared before starting to work. Study this script carefully. It's a good example of the orderly, logical way you should work out a how-to story–including reminders of things you might forget under the pressure of actually shooting the pictures.

An advantage of a well-planned script is that it enables you to schedule your shooting in an efficient way. You can group subjects that are most easily shot at the same time–regardless of the order in which they will finally appear. For example, if there are a number of shots involving a drill press or a radial saw, you might arrange to shoot all these at the same time.

Poor: This picture has many faults common to poor how-to pictures. In the first place, it is confusing. We can't tell what the scattered pieces of wood are for, nor can we see what the workman is doing. The cluttered background is ugly and distracting, and the scarred, dirty-looking work surface gives an unpleasant effect. The photograph doesn't instruct, and it doesn't make the project–whatever it is–look enticing.

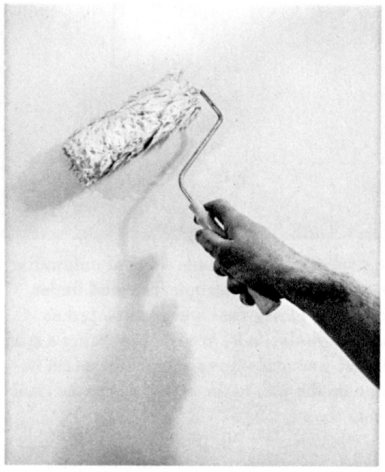


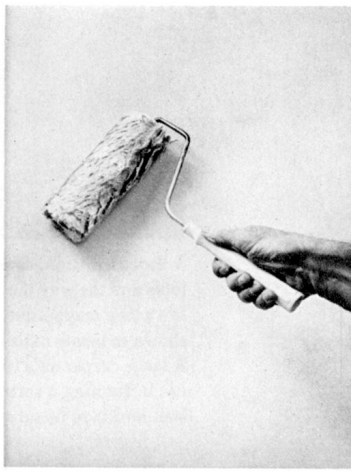
Good: See what a vast difference is made by taking pains to organize the picture so it delivers its message quickly and also looks pleasing. The bottle of glue, the box of brads, and the hammer and nail give us the information we need on how to assemble the pieces of wood. The assembled unit in the background shows us the result–a set of table legs. All the elements are arranged against a plain background so they stand out distinctly.

Sample how-to shooting script:
Putting up bookshelves

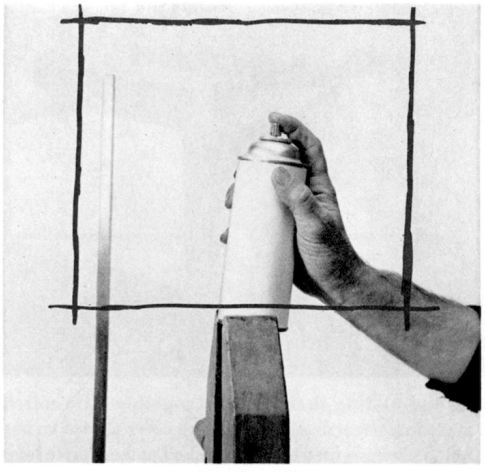
1. Materials needed for mixing texture paint for wall.
2. Paint wall [with roller] to make it fresh.
3. Spray shelf standards to match wall.
4. Measure down from ceiling to locate position for top of standards, and mark with pencil.
5. Locate studs, using stud finder. [Show near baseboard. Also show nail, if possible.]
6. Show toggle bolt for use in plasterboard wall when stud can't be located. [Close-up of fingers inserting bolt.]
7. Set up saw to make miter cuts in shelf endpieces.
8. Show hand vise used to clamp shelf and endpiece together for miter nailing. [Be sure to include glue bottle.]
9. Show "shoeshine" sanding technique on shelf edge. [Include can of primer sealer.]
10. Show how to countersink the shelf bracket ends, using a hand drill.
11. Shot of bare shelves to show the way the unit looks when assembled.
12. "Payoff" shot–the unit put to good use. Include a tuner and amplifier on shelves. Suggest a young, active family.

1 Mixing texture paint for wall: You often need shots of the tools and materials used. Make a simple, effectively composed still-life that shows the important things. A single flood overhead gives light contrasty enough to bring out forms and textures, but there's plenty of fill-in light bouncing off the white paper sweep to keep the shadows open. When a job is messy and should be done on newspapers, as here, use the classified pages and show them upside down. They contain no big type or big pictures that might be distracting.



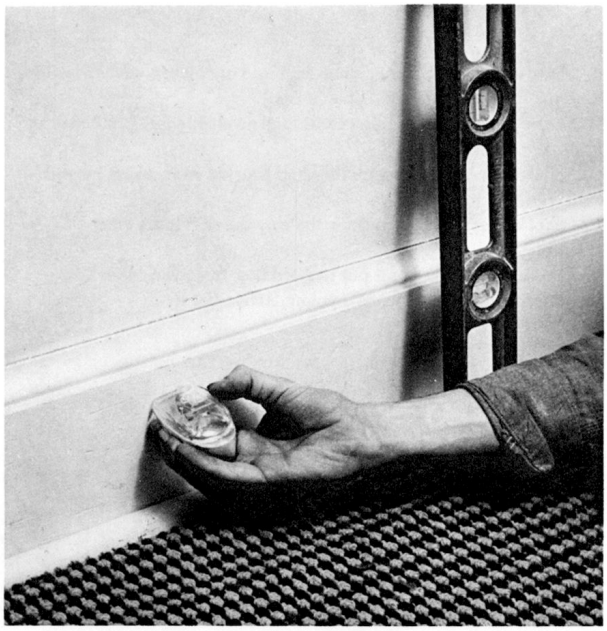


2 Painting the wall: Avoid double shadows, like those in the picture at left–they are distracting and give the shot a faked look. When you're working close to the wall, as was the case here, it's almost impossible to avoid this fault with the usual mainlight-plus-fill arrangement. For a soft shadow, as in the improved picture at right, use bouncelight from a flood or flash.

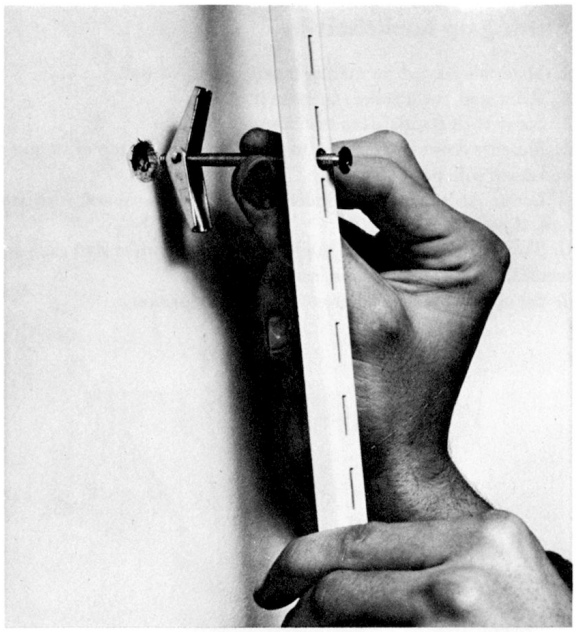


3 Spraying standards to match wall: A large wooden vise gives you a good means to hold a small object steady. When cropped as indicated, the vise won't show. A hand can be shown in the picture if you wish. For a model, use an assistant–or yourself, taking the picture with a self-timer or a cable release. If it's necessary to conceal the brand name of a product, cover the container with plain white paper as we did here, and attach the paper with Scotch tape on the side that won't show.

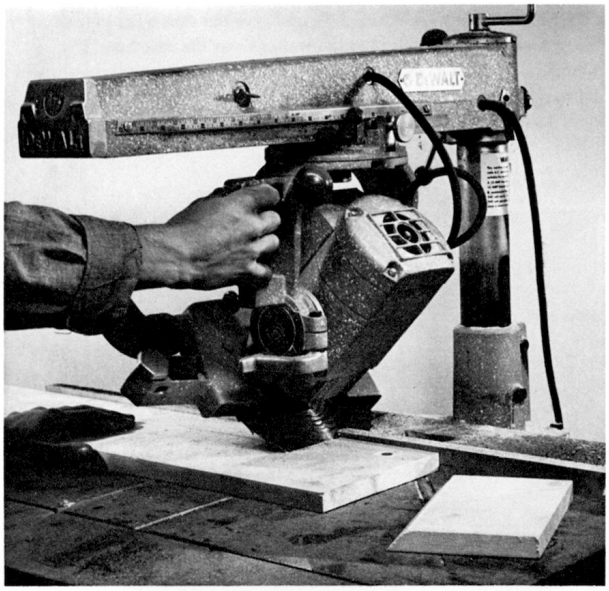
4 Measure down from ceiling and mark location of standards: Again, bouncelight was used to avoid confusing shadows. An instructional point to be made in the caption is that the ruler should be held with its edge against the wall, rather than flat, to give most accurate results when you mark with a pencil. The camera angle clearly shows how the ruler should be held. Include details like this, which you want to emphasize in your copy–and be sure there are *no contradictions between what you say and what you show.*



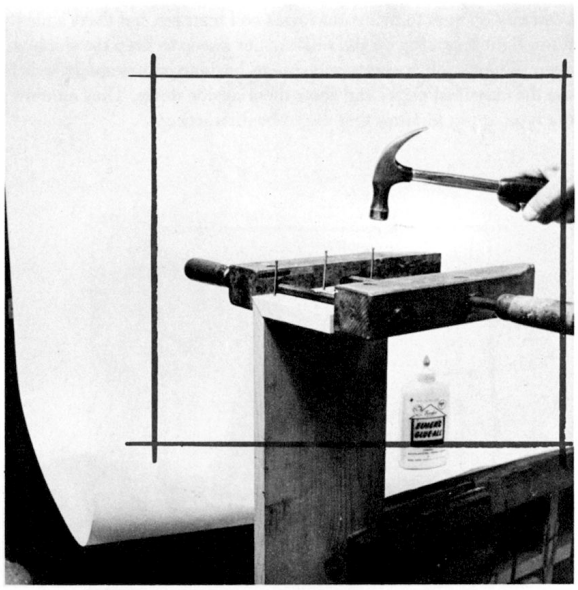
5 Locate studs, using a stud finder: Include shots of unfamiliar tools and the way they are used. Here, for example, is a stud finder. It's a tiny magnetized pointer in a plastic case and is employed as shown to locate nails inside a wall–the nails, in turn, indicating a stud. A large carpenter's level is also included–the caption will explain its use in running a vertical line up the wall to the height where the shelf standard is to be screwed into the stud.



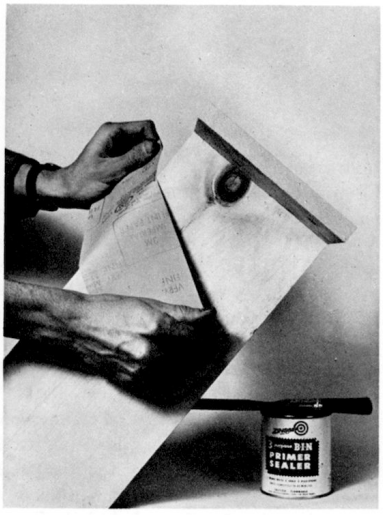
6 Fastening a standard with a toggle bolt: Here's an example of a tight close-up shot used to good effect. This step shows how to attach the standard to a plasterboard wall by means of a toggle bolt when a stud can't be located. Since a toggle bolt may be unfamiliar to some readers, a close-up view is needed. The shot also shows how the toggle bolt is inserted in a hole bored in the wall.



7 Making a miter cut for the shelf ends: For this step, we shot from a position that shows the 45-degree angle of the rotary saw blade. The short piece already cut off will become an end for the shelf, as we plan to explain in the caption. The endpiece is placed in the foreground at an angle that shows the mitered [beveled] edge clearly. Notice that we've moved far enough back to show the relationship of the saw to the piece of wood and to the person working the saw.

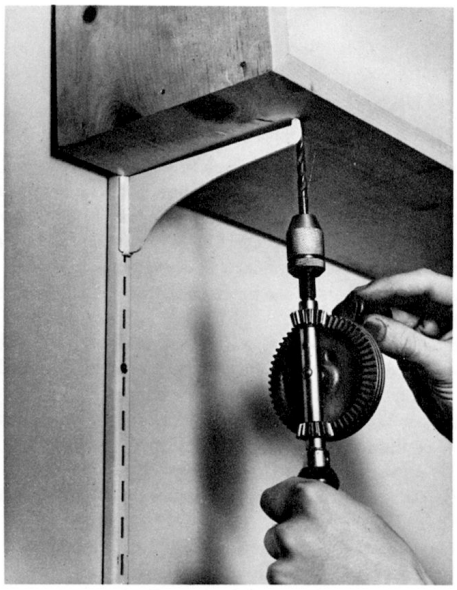


8 Clamping and nailing shelf and end together: Do everything you can to make important details clear. Here we've chosen an angle that shows how a clamp is used to hold the shelf and endpiece together, and where the nails are placed. The mitered joint between the two pieces of wood did not show well enough, so we marked the line of the joint with a soft lead pencil. Notice that we've included a bottle of glue to indicate it is used in this step [the joint is glued before nailing]. The lines show the final cropping.

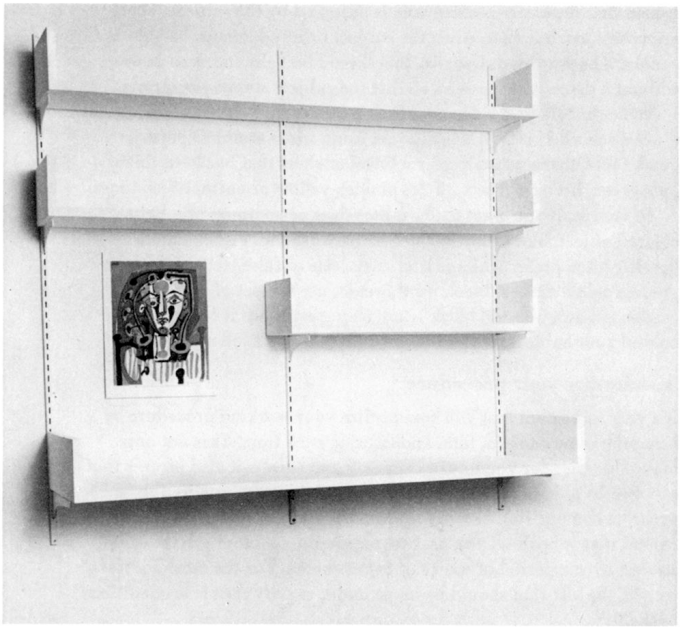


9 Sanding the shelf edge: The picture at left contains a number of faults. The model stood too close to the camera, giving a distorted, foreshortened arm–a common fault. Even more important, we can't clearly see that the sandpaper is bent. We want to mention the use of a primer sealer [to follow the sanding] in the caption, but the messy can is unpleasant.

The picture at right is much better. We can see how the sandpaper is bent around the shelf edge to round it. The model is standing more to the side, so his arm is not foreshortened. The clean can and paintbrush are more attractive than the previous ones.



10 Countersinking the bracket ends: This step, although a simple one, would be almost impossible to describe adequately in words alone. It involves drilling a hole so that the protruding lip of the shelf bracket fits into the bottom of the shelf. A view from underneath the shelf shows the step clearly enough, so that a short, simple caption can explain the procedure. The following step of painting the shelves does not need to be shown, as it can be covered in the caption.



11 The assembled unit: An essential picture in many how-to stories is an overall shot of the result, showing the relationship of the various parts when assembled. If well done, this kind of picture can give the viewer a great deal of information about construction details that it is difficult to convey in words. The painted shelves are set up on brackets mounted onto a "wall"–actually a flat constructed of plasterboard nailed to two 2x4 uprights.

12 "Payoff" shot: The purpose of a "payoff" shot is to glamorize a project and make it seem worth doing. Usually it's most convenient to shoot the payoff picture last–but in a magazine layout it might be used as the lead picture. It's a key shot, so take pains to compose and light it skillfully. Here, for example, a number of attractive and interesting props have been added–books, ceramic figures and objects, a guitar, and hi-fi components–to make the completed shelf unit look attractive and useful. Two photofloods bounced off a sheet of white cardboard provided the soft illumination.

Medical-dental photography

Photography plays a vital role in medicine and dentistry. Doctors have come to depend more and more on the camera to take notes for them–the most accurate and detailed of notes. They need photographs as an aid to diagnosis, as a means of checking a patient's progress, as a help in determining post-treatment care, to convey information about a case to other members of the profession, and–very important –as a tool for teaching.

Medical and dental photography is a highly specialized field, and some aspects of it require expensive equipment and special technical training–as in making X-ray photographs, for example. However, there are many types of medical-dental work that can be handled with relatively simple equipment by anybody with a basic knowledge of photography. We'll emphasize these broader aspects of the field, so that you can take successful camera "notes" under the direction of a doctor or dentist.

Here are some pointers that will help you do a better job if you work in medical or dental photography:

1. Familiarize yourself with enough basic medical or dental terms so you can understand what the doctor or dentist has in mind. The more you know about the terminology, routines, and procedures, the more efficiently you'll be able to work.

2. Do your shooting quickly, without fussing around. Move in, take bracketed exposures, and then get out of the way. Speed sometimes may be essential, as in taking photographs during an operation. But even when speed isn't a vital factor, you can help by keeping the time devoted to photography as brief as possible.

3. *Don't touch anything yourself.* If something is in the way of a clear shot, or you want the patient to move, ask the doctor or dentist to take care of the change.

4. Most important of all, keep the purpose of your photography in mind. You are not concerned with artistic qualities or self-expression in this kind of work. Your goal should be to make as useful a record as possible–*a picture that shows clearly and accurately what the doctor or dentist wants to see.*

Films for medical-dental photography

The majority of medical photographs other than X rays are made on color-transparency film. The reason is that color itself often is important to a physician. For example, the exact hue of red in an inflammation or the color of a healing scar may provide a useful clue in the diagnosis or treatment of a case. Often, 35-mm color film is used because of the convenience of storing, mailing, and projecting standard 2x2-inch color slides.

Cameras

Any camera you can use quickly and conveniently in close-up shooting is suitable for medical-dental photography. A 35-mm single-lens reflex with interchangeable lenses is frequently used. With the aid of a ringlight electronic flash [demonstrated on the facing page] and a set of extension tubes, a 35-mm SLR can handle just about any general type of medical or dental shot.

If you do much work at close-up ranges, a special camera for this purpose may be worthwhile. Various models are available–we demonstrate two on the following pages. These cameras include an adjustable "framing finder" similar to the one we showed you in the section on close-up photography. When this is adjusted, you get a correctly framed, sharply focused picture simply by placing the frame around the area you want to photograph. Also included is a built-in light source that gives flat, even lighting and standardized exposure. Using one of these special cameras is almost as simple as pointing your finger.

Lighting

Electronic flash often is used in medical-dental work. There are a number of good reasons for this. First, its extremely fast flash makes it possible to take sharp, hand-held exposures even at very close distances to the subject–a boon when there isn't room or it's not convenient to put your camera on a tripod, as frequently happens in this kind of shooting. Also, electronic flash enables you to shoot on daylight type color film without a filter. And it's a relatively bright source of light that enables you to stop down for more depth of field even with relatively slow color film.

The lighting for most medical photography–especially close-ups–should be as flat as possible, with no distracting shadows. A ringlight is ideal for this purpose. This is a circular electronic-flash tube that fits around the camera lens. You might think of it as a doughnut, with the camera lens shooting through the hole. Because the light is so close to the lens, it gives almost perfectly flat illumination, even when you're shooting into a cavity such as a mouth or ear. Another method sometimes used is to mount a pair of mirrors on either side of the camera lens and angle them to throw light onto the subject from both sides.

If you're shooting with daylight color film and electronic flash, be careful that room lights don't register and perhaps throw off your colors. When there are strong fluorescent or tungsten lights in the room, it's best to turn them off [if practical] at the time you shoot.

Backgrounds

In many medical photographs there is no background, for the simple reason that the entire picture area is occupied by the subject. There are occasions, however, when the subject or its edge must be shown against a background. Usually, this should be light and even in tone, without a distracting pattern, so that the subject stands out clearly.

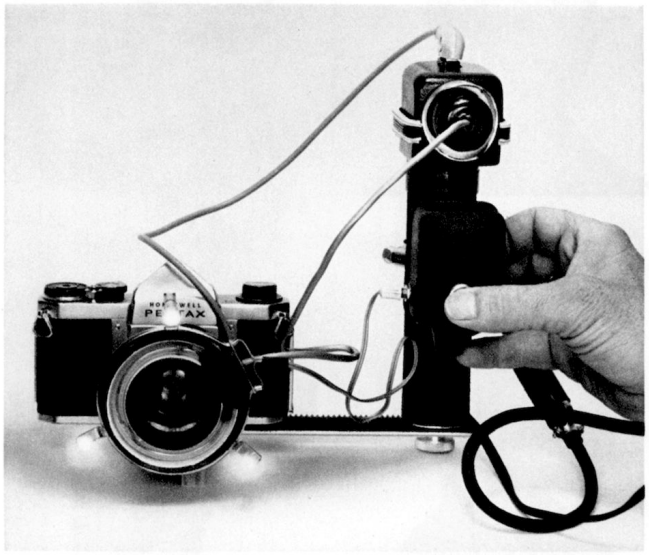
Some doctors prefer to shoot flesh tones against the white of a plain towel or sheet. If it is practical to set it up, white seamless paper is good, too. Other doctors prefer a towel or sheet that has been tinted a pale green, because it sets off the pinkish yellow of normal flesh tones.

Of course, if you want to show the edges or contours of a light-colored object, black may be the best background. For example, dentists often prefer white plaster casts, sets of false teeth, etc., to be photographed against black. In this case, use a sheet of black cardboard or a piece of black seamless paper. Place it far enough behind your subject so that too much light doesn't fall on it.

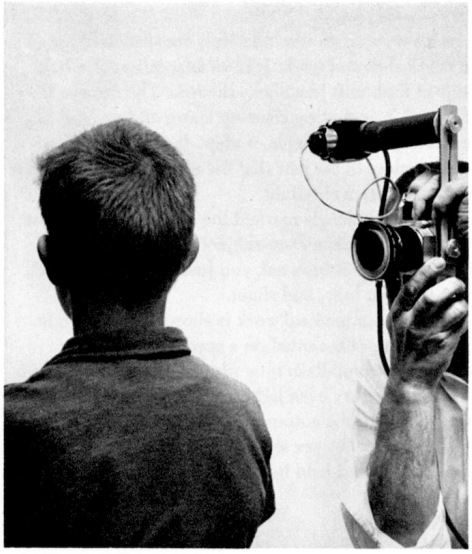
Standardize your procedure

It's very important that you standardize your working procedure by using the same camera, film, and lighting each time. This not only makes it easier for you to work quickly and surely–it also insures that you will be able to repeatedly get results of the same quality for accurate comparison. For example, in showing the progress of a wound that is healing, you may be required to photograph the same subject over a period of weeks or even months. For the most accurate record, the last shot should be made under exactly the same conditions as the first.

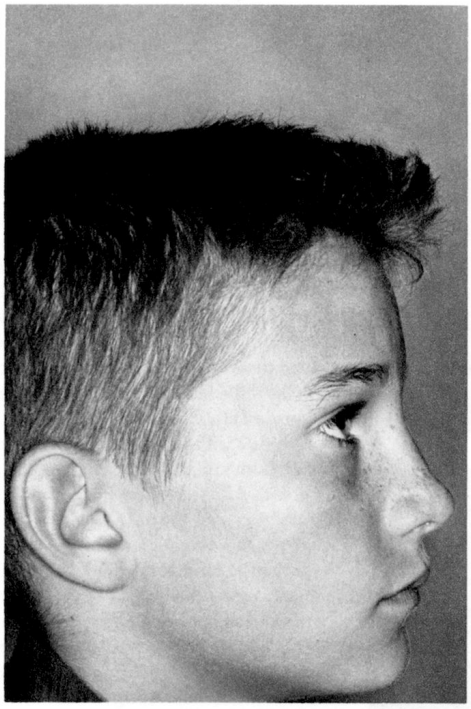
If you shoot color and send it out for processing, choose the most reliable lab you can–and continue to use it in the interests of better consistency. Also, it may be wise to buy a quantity of the same color film at one time and store it under refrigeration according to the manufacturer's directions. Unopened, refrigerated color film can safely be kept a considerable period of time, and when you use the film you know it all has very similar characteristics. If you buy small quantities of color film from time to time, there may be slight variations in its speed and color quality.



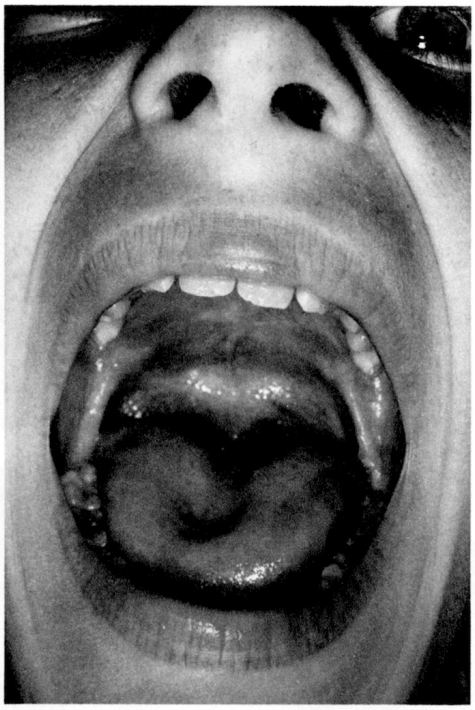
Here's a 35-mm single-lens reflex camera equipped with an electronic-flash ringlight–a circular tube placed around the lens mount, giving very flat shadowless illumination even in openings and cavities. The three small lights around the rim of the tube are accessory focusing aids, which send out beams of light that intersect at a point about a foot in front of the lens; you can focus on this point. This is especially helpful for taking pictures of the interior of a mouth or other cavity where focusing is difficult.



To take a picture with the ringlight on a single-lens reflex, simply focus and frame the subject on the camera's groundglass. At a close distance, such as shown here, you may find it easier to do your fine focusing by moving your body and the camera back and forth slightly rather than by adjusting the focusing control.



This is the picture the photographer got. It illustrates the flat, even, practically shadowless illumination the ringlight gives you. The speed of the electronic flash insures a sharp image even though the camera is hand-held.



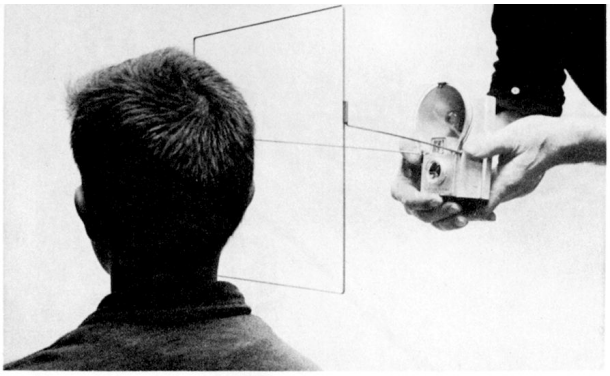
In medical-dental work you often may be required to shoot into a deep cavity–an open mouth or an opening in the human body itself during some stage of an operation. Notice how the ringlight illuminates the tongue and the walls of the mouth evenly–an effect impossible to obtain with ordinary lighting methods.
[Special equipment courtesy Lester A. Dyne Corp.]

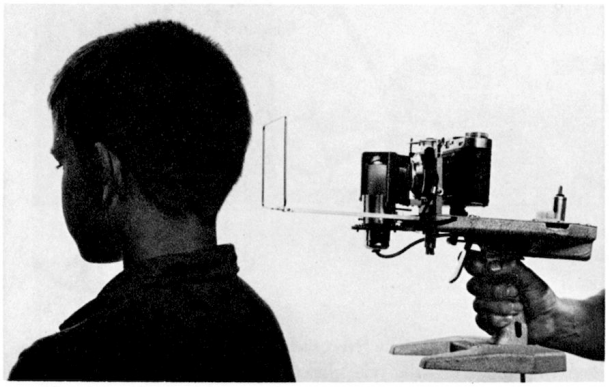
Special cameras for medical-dental work

At top right you see a very easy-to-use, relatively inexpensive type of camera helpful in medical-dental work. It is an adaptation of a box camera, with a built-in flash unit just above the lens. The camera is available as a complete kit, including close-up lenses and a series of framing finders covering different fields of view. It uses a small flashbulb positioned so close to the lens that the effect it gives is almost as flat as the one you get with a ringlight.

On each of the framing finders is marked the aperture setting that gives correct exposure for the camera-to-subject distance. Once the aperture is set and a flashbulb is inserted, you just frame the subject, as the photographer is doing here, and shoot.

A more elaborate setup for medical work is shown at lower right. This includes a 35-mm camera mounted on a special stand with a framing finder and an electronic-flash tube which reflects light off two mirrors close to the lens for very even lighting. A number of frames are provided. Inserting the frame automatically focuses the camera and adjusts the lighting to the proper angle. The camera can be used on its pedestal stand, or be hand-held by the pistol grip.





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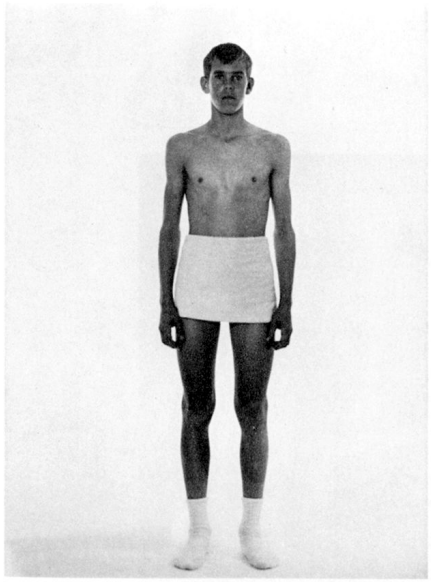

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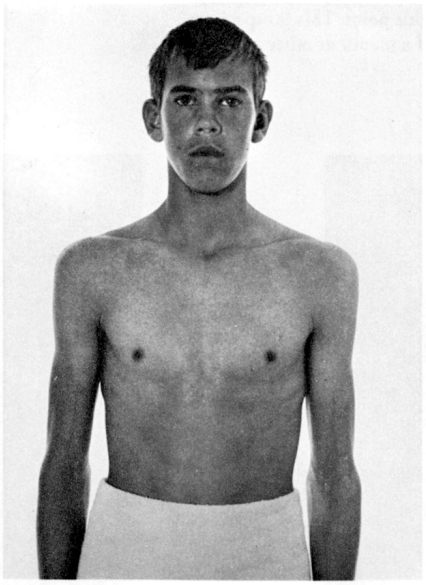

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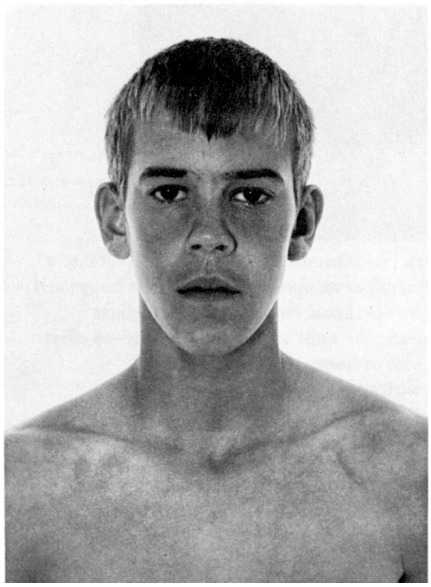

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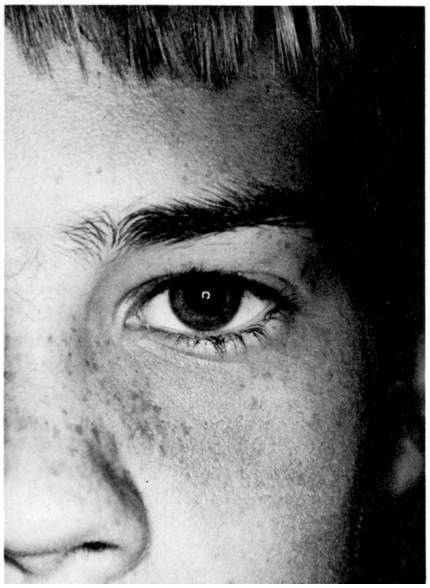


Recording a subject for medical purposes

A common type of medical photograph is one that shows the exact body conformation of a patient–perhaps from one or more angles and from various distances. The accompanying set of photographs demonstrates a good method of taking these straight medical record pictures. A plain white background was used to make the subject stand out clearly. Pictures 1, 2, and 3 were shot with bouncelighting–a good choice for even illumination of the full or partial figure–and Picture 4 was made with a ringlight.

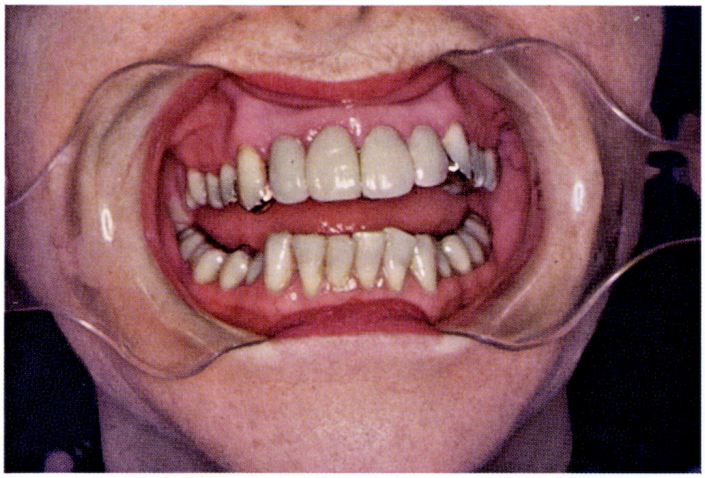
When shooting pictures of this type, it's important to have your camera parallel to the subject, and to exactly center the subject or portion of the subject you are photographing. This is necessary to prevent perspective distortion, which may occur if you tilt the camera. Thus, in shooting Picture 1, the camera was exactly 33 inches from the floor–and the boy is 66 inches tall. In Picture 2 the camera was raised to place the boy's chest in the middle of the picture area; for Picture 3 the boy's mouth was placed in the center of the picture, etc.

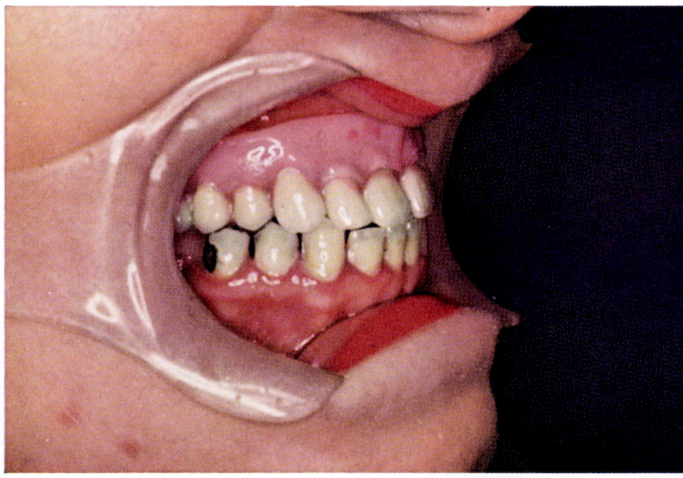
Examples of medical-dental photography

On this page we show you some examples of good medical and dental photography by experts. In each case, notice how clearly and plainly the important details are shown. Photographs like these can be very useful in checking the progress of a treatment, in rounding out a patient's medical record, and in teaching.

All these photographs were made on 35-mm color-transparency film with a hand-held camera and a ringlight.

In surgical work, often it is particularly valuable to have pre-operative and post-operative shots for comparison. At left is a photograph of a hand from which a fingertip has been severed and next to it is a shot of the skin-grafting treatment that was required. Get the important detail close to the center of the picture, where it will show up clearly. [Photographs courtesy of Malcolm S. Beinfield, M.D., and William F. Hughes, M.D.]





In dental photography, a photograph of a person's teeth often may be shot with the dentist aiding by using a retractor, which pulls back the lips to expose the teeth to the gums, as shown in the first two of these illustrations. The dentist may require a shot from the front as well as views from the side to give him a complete story. Shots like these may be made at several stages during the course of recapping teeth, making elaborate bridgework, or straightening crooked teeth.

To show the backs of teeth, have the dentist hold a mirror behind them. Then focus on the mirror reflection, as in the third photograph.

Copying

A valuable application of close-up photography is in copying documents, drawings, paintings, photographs, book and magazine pages, and other flat subjects. With minimum equipment you can reproduce old pictures that have historical or sentimental value, copy material you need for research or reference, "collect" paintings or photographs you like, or make a new negative from a print if the original negative is lost. Copying is very important in law, industry, and commerce too, and you may find that it can be a profitable sideline for you.

Highly specialized equipment is available for copying, and it would take many pages to cover all aspects of the subject in detail. However, you can obtain excellent results with very simple means, as we will explain.

What you need

A camera with through-the-lens viewing is most convenient for copying, just as it is for most other kinds of close-up shooting. However, you can adapt other types of cameras by the devices already demonstrated for helping you focus on and frame close-up objects accurately. Depending on the size of the item you want to copy, you'll probably need a close-up lens or some degree of lens extension. For example, to copy an area measuring about 6x6 inches with a twin-lens reflex, a No. 3 close-up lens should be about right. For smaller areas, an extension tube, accessory bellows, or a combination of close-up lenses may be required.

Convenient but not absolutely necessary in copying are special *copy stands*. A wide variety of these are available for different kinds of cameras. Typically, they include a baseboard and a vertical column to which the camera can be attached. The camera is adjusted to the height at which the subject fills the negative area, and then is focused.

For quick, on-the-spot copying, such as you might want to do in a library, there are small, lightweight devices with four adjustable legs. These are available for certain interchangeable-lens 35-mm cameras. They hold the camera above the page or other material to be copied. Properly set, and with the correct extension tube on the camera, they automatically give you sharp focus and correct framing.

Some makes of enlargers, too, can be used as copying cameras, generally by removing the lamphouse and adding a special groundglass and film holder. An enlarger lens has no shutter but you can make your exposure by removing the cap from the lens, and then putting it back over the lens. With still other enlargers it may be possible to remove the entire enlarging head and replace it with a camera.

Lighting for copying

Some of the more elaborate copy stands come equipped with mounted lighting units. However, you can easily provide your own lighting for copying with a pair of mushroom photofloods, photofloods in metal reflectors, or even ordinary household bulbs in reflectors. Electronic flash is suitable, too, but should be the type with a modeling light so you can more easily check the evenness of the lighting. In general, daylight tends to be too variable in its intensity and direction to be satisfactory for copying, although you can use it in an emergency.

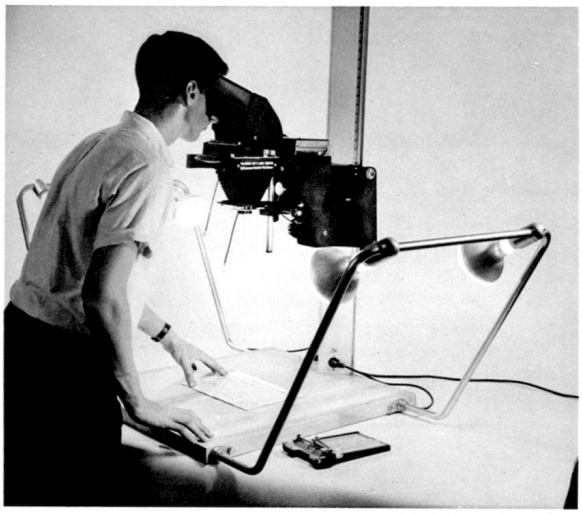
Whatever light source you use, *the important thing is to evenly illuminate the surface of the item you are copying.* Also, you must avoid any glare, reflections, or hot spots that may obscure details.

The easiest way to get even lighting is to use a pair of matched light sources–two photofloods of the same wattage and in the same-size reflectors, for example. Set them at equal distances from the subject, one at 45 degrees left and one at 45 degrees right. Don't place them too close to the subject–about three feet is a minimum, and probably five or six feet will make it easier to get the lighting even.

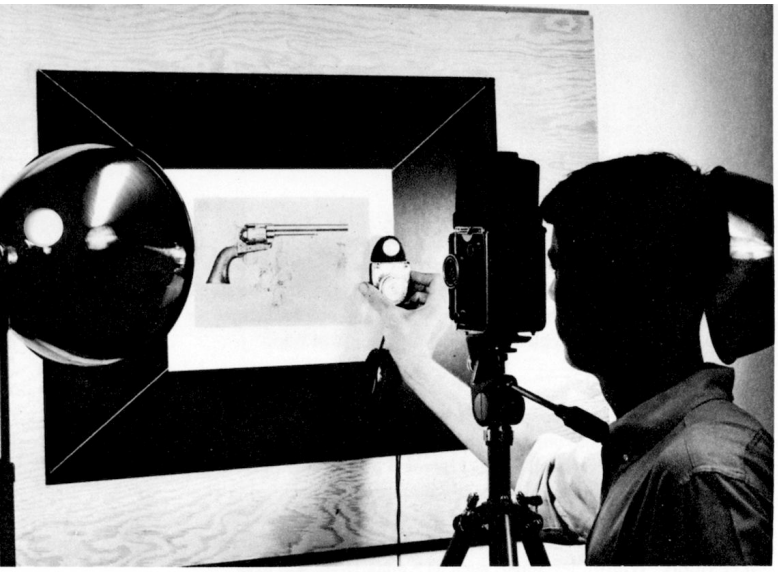
Don't trust your eye alone. Check the evenness of the illumination with an exposure meter, as we demonstrate on the facing page.

If the subject is not perfectly flat–say it's an old, wrinkled document–directional lighting may cause shadows where light rays strike raised portions of the paper. In this case, point the two floods directly at the ceiling in front of the subject and shoot by bouncelight.

Some enlargers can be converted into copy stands. This model's condensers can be reversed to make a reflex viewing and focusing system. A special holder is used for the film. You adjust the size of the area copied by sliding the enlarger head up or down, and focus with the enlarger's focusing mechanism.



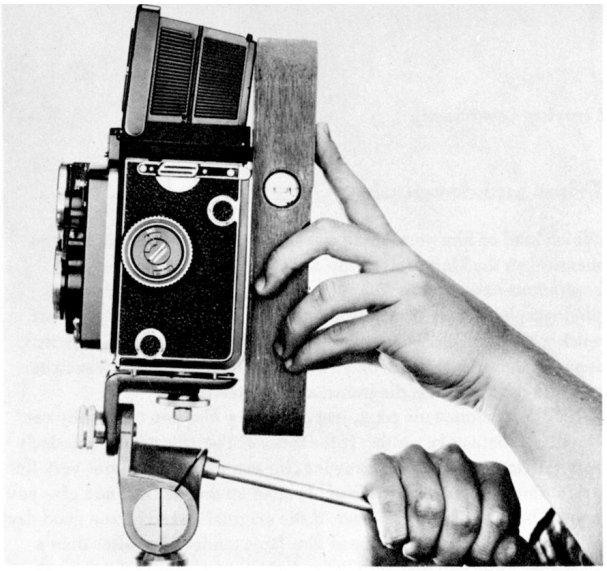
This is one of many varieties of professional copying equipment available. It is designed for use with Polaroid material. It includes a baseboard, a frame to hold four photofloods, a housing that contains the film holder and a reflex viewing system, and a variety of controls for exactness and convenience in shooting.



A basic horizontal setup: The setup shown here is simple, inexpensive, and useful for copying most types of items except books or magazines, which should lie flat and be photographed from above. It's called a horizontal setup because the camera is on the same level as the item to be copied.

You can use any bare wall for this purpose, but it's more convenient to hang up a sheet of plywood for a "copy board" as we've done here—then you can attach things with thumbtacks or masking tape to the board without marring the wall's surface. We've fastened a large sheet of black paper to the center of the plywood. The black paper reduces the chance of glare and reflections. The white lines drawn diagonally across the black paper are guides to help position the copy exactly straight and in the center.

Two No. 2 photofloods in standard 12-inch metal reflectors provide the lighting. They are placed at 45 degrees left and right for flat, even illumination. You could use clamp-on holders and attach the lights to chair backs or other pieces of furniture, but you'll find it much more convenient to use telescoping light-stands as we did here. With these, it's much easier to make the fine adjustments of the lights needed to get perfectly even illumination.



The camera in this case is a twin-lens reflex with a close-up lens. To avoid parallax error, the camera was raised after focusing, to put the taking lens into the viewing lens's position.

The photographer is taking an incident-light reading from subject position. After holding the meter close to the right-hand edge of the copy, he'll move it close to the left-hand edge, to check the evenness of the lighting. If the lights are properly adjusted, the readings should be identical. If the readings aren't identical, it's necessary to adjust the distance and angle of the lights until they are. If you are using a reflected-light meter, you'll find it easier and more accurate to take your reading from a gray test card held flat against the copy.

Be sure the film plane is perfectly parallel with the subject. First check to be certain the camera is facing the wall exactly head on. Next, place a spirit level against the copying board, and then against the back of your camera, as shown above. Adjust the camera until its back and the board to which you attach the copy are perfectly parallel. Check your focusing and refocus, if necessary. Once everything is set, be sure you don't accidentally move the camera out of alignment. And, of course, be sure the item you're copying is fastened smooth and flat against the board, and that it is squarely positioned.

A basic vertical setup: A vertical setup—with the camera above the copy—requires less working space than a horizontal setup, and you may prefer to use it for that reason. Also, some kinds of items, such as books and magazines, are most easily copied if they can be rested on a horizontal surface rather than attached to a wall. However, for a vertical setup you will need some kind of stand to hold your camera and allow you to adjust its height above the subject.

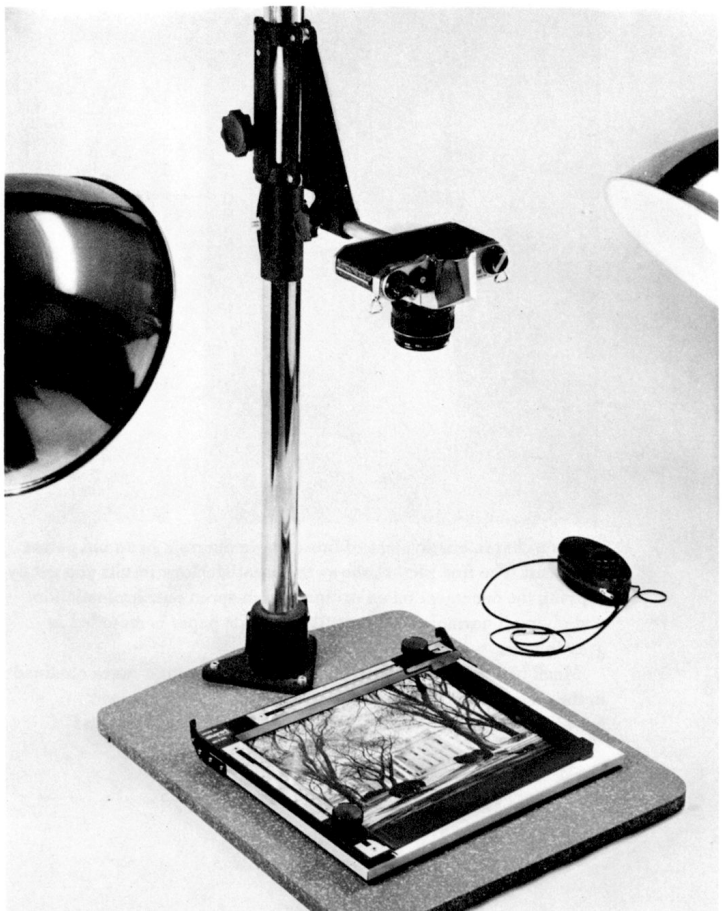
A typical copy stand is shown here. It is constructed much like the baseboard and post of an enlarger. You attach a camera to it by screwing the camera's tripod socket onto a horizontal arm. In this demonstration we've used a single-lens reflex camera, which permits framing and focusing by looking through the camera's groundglass.

The photograph we're copying is held flat by an enlarging easel—a good device to use with many items. A sheet of heavy plate glass can be placed over pages or documents that tend to curl, thus holding them smooth. Of course, the glass must be perfectly clean.

Here the lights are pointing down on the subject from a 45-degree position left and right for flat illumination. The evenness of the illumination should be checked by meter, as we have explained.

With a vertical setup, place a spirit level on the baseboard, then lay it on the back of the camera and adjust the camera if necessary to get its film plane perfectly parallel with the baseboard.

Vibration tends to be more of a problem in a vertical setup than in a horizontal one. Therefore, be sure to do your work on a heavy, steady table and don't walk around during a long time exposure.



Films and developing

Which kind of film you should choose for copying depends in large measure on the kind of item you are copying–whether it is *continuous-tone copy* or *line copy*. Continuous-tone copy includes photographs, pencil drawings, paintings, lithographs, and other art work with a range of gray tones between black and white. Line copy includes material that has only two tones–black and white–such as pen-and-ink drawings, diagrams, and printed type.

For continuous-tone copy, just about any film you ordinarily use can give satisfactory results. If the tones of the original are relatively soft and flat–as in a pastel drawing, for example–use a slow, very fine-grain film. This can be developed to snap up the contrast and give you a more brilliant copy. However, if the original already has a good deal of contrast, use a medium-speed film [this tends to be softer than a slow-speed film] so that your reproduction won't contain too much contrast. High-speed films can be used in an emergency, but they are not the best choice for copying work because they are less sharp, more grainy, and too easily overexposed, losing detail in highlight areas. A table of films suitable for continuous-tone copying is listed in your Technical Manual.

For line copy, a very contrasty result is desirable, with crisp blacks, pure whites, and no grays in between. It is possible to get this result with a slow, thin-emulsion film if you expose and process it for very high contrast, as explained below. But even better is to use one of the special high-contrast copying films that are available in sheet-film and 35-mm sizes.

Exposure

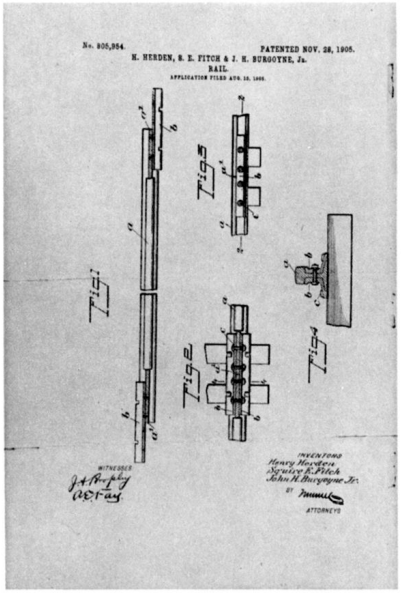
Accurate exposure is important in getting good copies. Use an exposure meter, and remember to adjust your exposure for lens extension, reciprocity factor, and filter factor if these are necessary. Also, it's wise to bracket your exposure–one stop over and one stop under with any ordinary black-and-white film, and one half stop over and one half stop under with any special high-contrast film.

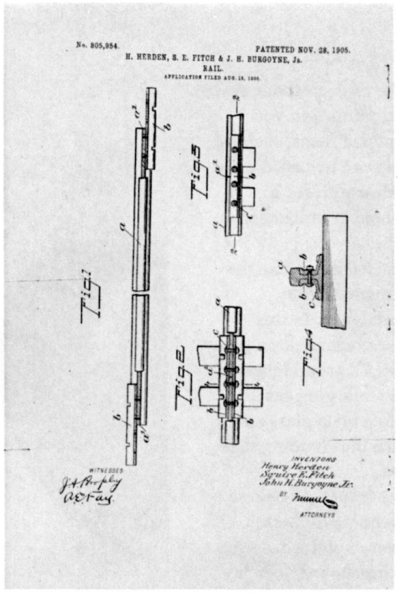
Developing your film

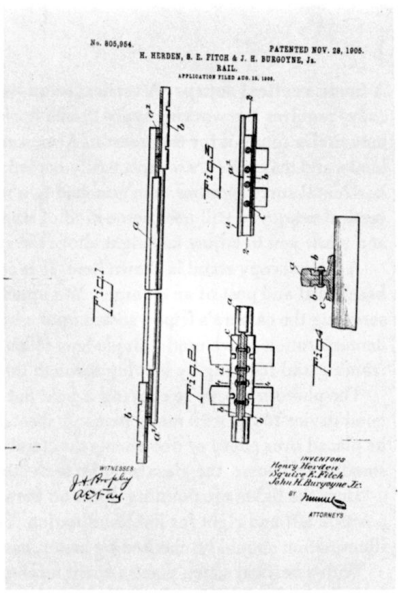
In most continuous-tone copying, it's best to develop the film as you generally would, using your customary developer and normal developing time. If you wish a slight increase or decrease in contrast, this usually can be obtained by slightly increasing or decreasing your developing time. However, the type of developer you use also can influence the quality of the negative you get. A medium-fine-grain "M.Q. Borax" type of developer, such as Kodak D-76, will give relatively soft results. A commercial developer such as Kodak D-19 will tend to produce snappier negatives. If the results you get seem consistently too soft, use a contrastier developer; if they are too contrasty, use a softer-working developer.

When using a special high-contrast film for line copy, it's best to develop it in one of the special high-contrast developers especially designed for this use, such as Kodak D-11 or D-8. However, if you only do an occasional amount of copying, you may not want to bother to mix a special developer. In that case, you can obtain good results by processing the high-contrast film in a *paper* developer such as Kodak Dektol, Ansco Vividol, Du Pont 53-D, or Plymouth LPD. Dilute the stock solution of the developer 1:1 and run a test, using a development of about 2 minutes at 68 degrees F. as a starting point.

Special methods for line copy







Here's a characteristic piece of line copy–a diagram in an old patent document. The first picture shows the unsatisfactory results you get by copying the document on an ordinary high-speed panchromatic film and giving it normal development. The white paper is recorded as gray in tone.

Much better results–with a clean white background–were obtained in the second picture by using a slow, thin-emulsion film and increasing its contrast by a combination of underexposure and overdevelopment. The film [Panatomic-X] was rated at an exposure index of 200 [more than four times its normal ASA rating] and then developed for 4 1/2 minutes at 68 degrees F. in Dektol [a powerful, contrasty paper developer] diluted 1:1.

Slightly crisper blacks and even purer whites were obtained in the third shot by using a special high-contrast line-copying film [Kodak Reprolith], exposing it at its normal ASA rating of 3, and then developing it for 3 minutes in Dektol diluted 1:1.

Filters for copying

If the item you are copying is in color, or contains any color, you may find that a filter is necessary to get the best possible black-and-white reproduction. Yellowed, faded photographs can be improved with a filter. A filter can also reduce or remove stains on photographs, drawings, or documents.

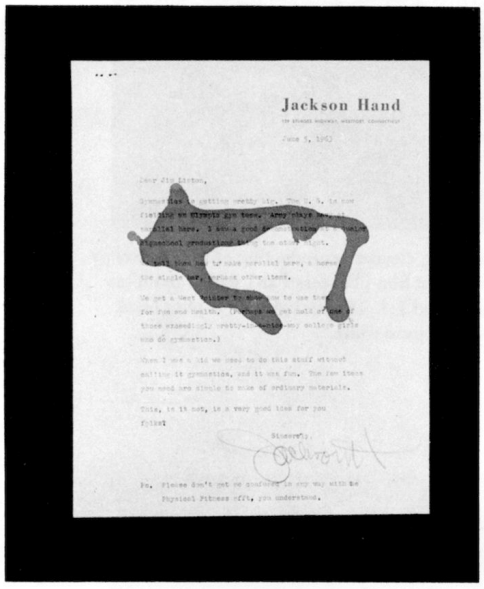
The basic rule to remember in working with filters for copying is that *to lighten a color, you use a filter of the same hue.* For example, to reduce a red inkstain, shoot through a red filter. *To darken a color, use a filter of a complementary hue.* For example, to darken the yellowish tones of a faded photograph, use a blue filter.

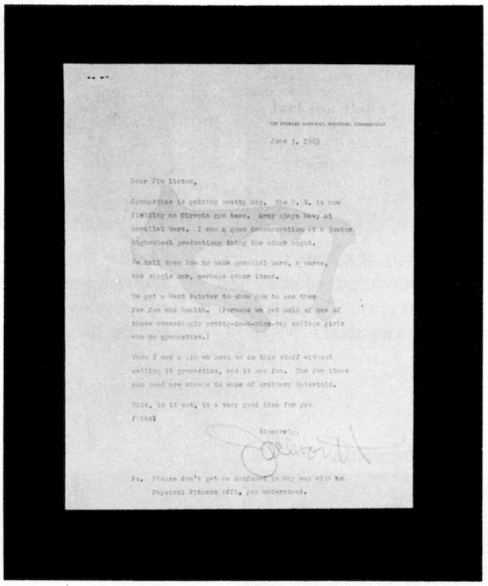
The accompanying illustrations show some of these effects, and the chart lists the filters to use in solving the more common problems you may encounter in copying work. Remember to use the necessary filter factor. For more details on filters and filter factors, see the section on filters for black-and-white photography in your Technical Manual.

Filters useful in copying*

Subject	If you want this result	Use this filter
yellowed pages with black ink	stronger contrast by whitening the page	dark yellow or orange
documents with ink faded to brown or yellow	stronger contrast by darkening the ink	blue
faded, yellowish photographic prints	stronger contrast	blue
	much stronger contrast	blue plus orthochromatic film
copy with strong surface reflections, such as glass-covered pictures and glossy photographic prints	reduce or eliminate reflections	polarizing filter
paintings	natural	medium yellow if light source is daylight; light green if light source is flood

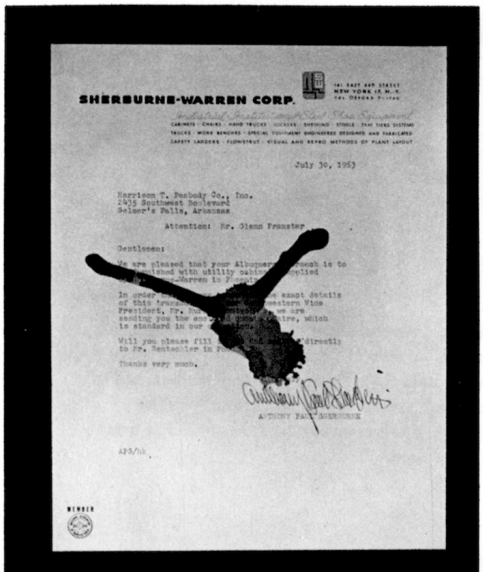
*This chart applies to black-and-white *panchromatic* films unless otherwise noted.

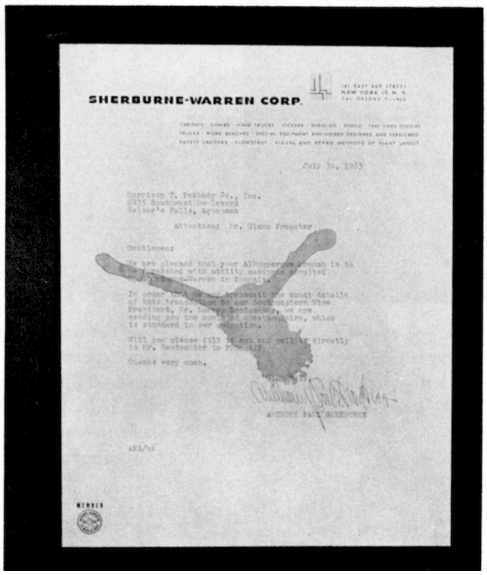




Reducing a red stain

Transparent stains often can be reduced or even eliminated by using the right filter. In this example we spilled some red ink on a letter. The picture at far left was photographed on medium-speed film without a filter. The red stain shows very strongly. For the second picture we used a red filter. See how greatly it lightened the stain.





Reducing a blue stain

For these examples we spilled blue ink on a letter. The copy at far left was made without a filter, and the stain is so dark it is hard to read the print underneath. By using a blue filter for the second picture, we considerably lightened the stain.

Copying blueprints

A common photographic assignment in industry is producing a good, clear copy of a blueprint. The goal in photographing a blueprint is to make the blue of the background come out pure black. If it comes out gray, the reproduction will look muddy and may be difficult to read or reproduce. To get the best results, follow this procedure.

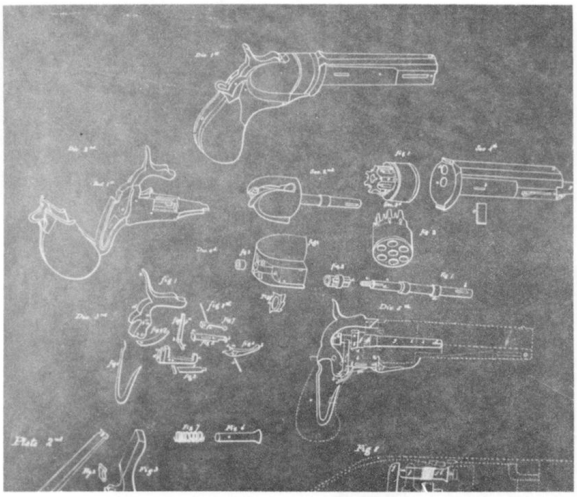
Film: With a 35-mm or sheet-film camera, use a high-contrast film for line copy. With roll film, use a slow, thin-emulsion film. [The special high-contrast films aren't available in roll-film sizes.]

Filter: Use a red filter to darken the background.

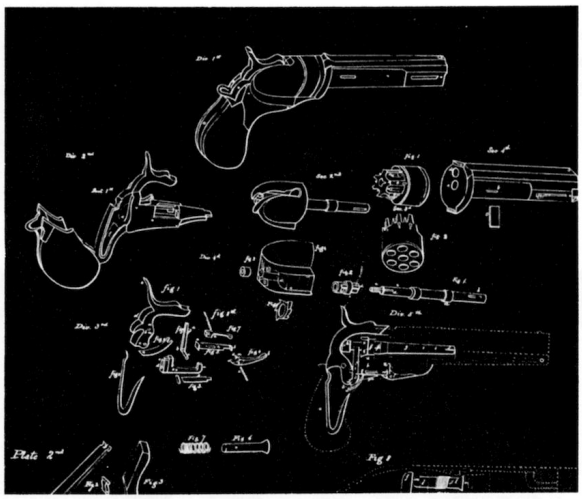
Development: Use a contrasty paper developer or one of the special high-contrast developers previously mentioned.

Printing: Print on a high-contrast grade of paper or through a high-contrast printing filter.

The common white-on-blue type of blueprint will produce a white-on-black print by this process. If, for greater ease in reading, you would like a black-on-white copy, follow the directions we give below.

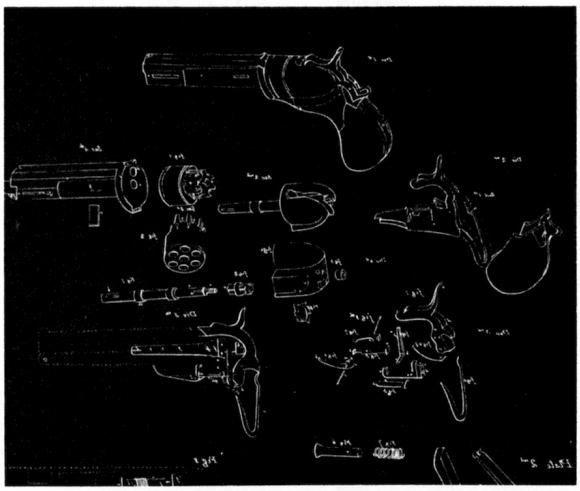


Poor: Here's a detail from an unsatisfactory copy of a blueprint, made on an ordinary medium-speed film without a filter and processed normally. The blue background has registered as gray. The copy is hard to read–it lacks contrast. [Reproduced from a patent application.]

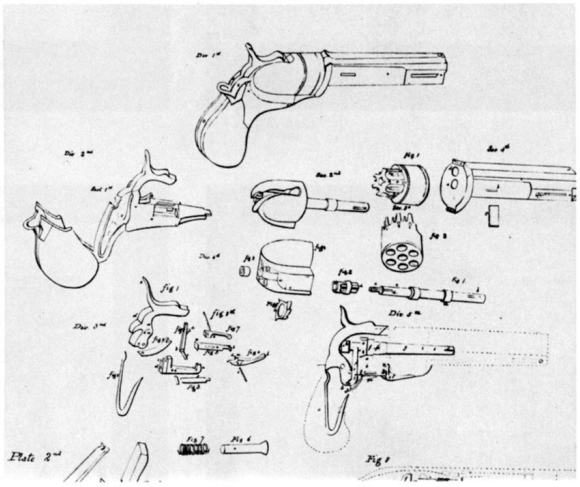


Good: Here's a much crisper, cleaner reproduction of the same copy made on a special high-contrast film [Process Pan] with a red filter and developed in Dektol diluted 1:1. The background is pure black and the lines and lettering are pure white.

How to make a black-on-white copy of a blueprint



First make a negative. Place this in the enlarger, *emulsion side up* [to get a print with lettering and figures reversed, as in this example]. Make a contrasty print with strong blacks on a sheet of *single-weight* printing paper. This reversed print will serve as your negative.



Place the reversed print face down on an unexposed piece of contrasty printing paper with its emulsion side up. Lay a sheet of heavy glass over both pieces of paper to hold them tightly together, and expose to white light, just as for making a contact print. The result will be a black-on-white copy like this. You'll need to experiment a bit at first to determine the right exposure time.

Making copies in color

Sometimes you may want to copy things in color–for example, to photograph a favorite painting or make color slides of production charts or diagrams. The basic advice we've given regarding setups, lighting, and exposure applies to color copying as well as black and white. However, color copying does have some special aspects.

You can make your copy on a color-negative film or a color-transparency film, depending on whether you want to project the result or have a color print. Usually you can expect truer, richer color reproduction in a transparency than you can in a color print because of the superior brilliance of a transparency.

First, be sure to match your light source and type of color film properly. We recommend that you select a film balanced for the light source you are using, and not attempt to use a conversion filter. A conversion filter adds another possible variable factor that is best avoided in this kind of work.

Expose very carefully, using an exposure meter. With a reflected-light meter, take your reading from a neutral gray card, as we have recommended. Bracket your exposures, too–by one half stop for color-transparency films, and a full stop with color-negative films.

To reduce surface reflections, such as you may encounter when copying oil paintings, use a polarizing filter.

If very faithful color reproduction is important, it's a good idea to make some preliminary test exposures, have them processed, and then study the results, comparing your picture with the original. If the colors are a little too warm or too cool, experiment with color-compensating filters to alter the hues slightly.

Copying tips

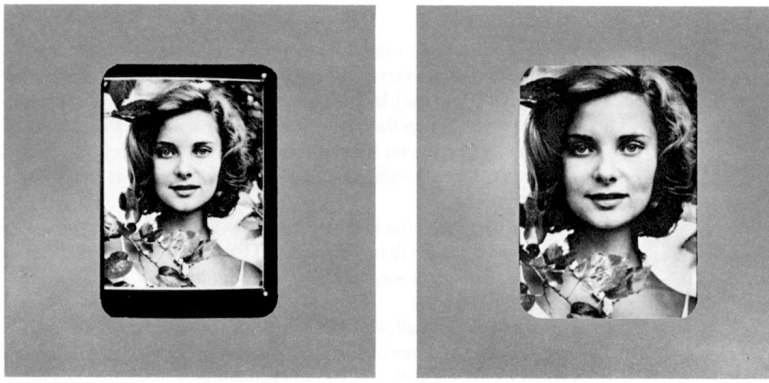
- Focus accurately. A magnifying viewer on a groundglass will help you do this.
- If you have trouble with hot spots or uneven lighting, try diffusing your light sources with fiberglass, muslin, or some other diffusion material.
- To hold a piece of copy flat without tape or thumbtacks showing, use double-surfaced tape–the kind that's sticky on both sides. [You can get this at most hardware stores.] Place small strips of tape on the back edges of the item to be copied, and then press against the copy board.
- Sometimes you may want to copy a photograph made on a rough-surfaced paper. First try bouncelighting and/or a polarizing filter to reduce the surface texture. If that doesn't work, try this method. Immerse the print face up in a tray of clear water and weigh it down with a sheet of glass to keep it flat during copying. The water will reduce the appearance of rough texture.
- When copying a halftone illustration from a book, newspaper, or magazine, you'll usually get best results by treating it as line copy rather than continuous-tone copy. Actually, a halftone engraving contains no grays–only black dots of varying size. Focus sharply on the dots and use a high-contrast film and developer.
- If the original copy is faded, stained, or dirty, cleaning and special treatment may give you better results. However, there is always the danger that attempts to clean or improve an old picture or document will damage or destroy it. Therefore, don't attempt this without the owner's permission. As a safeguard, make the best possible copy you can before working on the original.
- Grease or oil stains sometimes can be removed with the aid of carbon tetrachloride or a film cleaner. However, avoid breathing in the fumes of carbon tetrachloride–they are poisonous.

Black-and-white copies for projection

Sometimes you may want to copy a black-and-white picture so you can project it as part of a slide show or lecture, for example. An easy way to obtain a slide is to shoot your copy on color-transparency film. Make a copying setup and light it in the usual manner, but be extra careful to frame the item accurately. Then shoot on a color-transparency film and have it processed. You will get back transparencies mounted in 2x2-inch cardboard mounts ready for projection.

When a black-and-white original is copied on color film, the blacks may not turn out perfectly neutral nor the whites absolutely pure. For example, the transparency may have a slightly warm or cool cast. However, a slight tint of color is not likely to be objectionable. The viewer's eyes will adjust to this very quickly and the projected image seem to have true blacks and whites. Before going to the work of making many copies, however, it's a good idea to run a test first with the lighting, type of film, and processing lab you plan to use.

Also, if you are using a single-lens reflex camera, check its framing. Although there is no parallax error with an SLR, some models show a little less on the groundglass than you actually get on the film. Since it's inconvenient to crop a transparency, your framing should be perfect. So shoot some tests first to see if you must make any allowance for framing differences.



When you copy an item on 35-mm color film and send it out for the usual processing, you will receive a 2x2-inch cardboard-mounted slide ready for viewing or projecting. However, in the slide at left, the photographer failed to correct for the slightly greater area included on his film than was indicated by the viewfinder of his SLR camera. As a result, the edges of the print and a portion of the copy board show. At right is a correctly framed transparency. Check your camera's framing, and make an allowance if the viewing system shows a bit less than you will actually get.
[Copied photograph by Philippe Halsman]

More pointers on special methods

The applications of the methods we've taught in this lesson are virtually limitless. Which of them you use–and how–depends on your own interests and goals. Here are some further pointers that will help you put these methods to work and solve some of the practical problems you might encounter.

- When shooting extreme close-ups, it's wise to stop down to get more depth of field [even at a relatively small stop it won't be much]. With most 35-mm camera lenses, however, you'll probably get better image quality *overall* if you avoid the smallest stops. These lenses often perform best in the middle or upper middle range of *f* stops. Depending on the subject, it may be better to sacrifice a little depth of field in exchange for a sharper image in the parts of the picture that are in focus.

- Special lenses are available for close-up shooting. They are designed to give top performance at very close shooting distances, and some are equipped with convenient features such as a diaphragm that automatically compensates for lens extension. If you do a large amount of close-up shooting, one of these lenses will be a worthwhile acquisition. Check with your camera dealer for up-to-date information.

- Here are three basic rules to remember in close-up shooting:
  If the total lens extension [measured from the optical center of the lens to the film plane] is less than twice the focal length of the lens, the image you get on the film will be smaller than life size.
  If the lens extension is exactly twice the focal length of the lens, you get a 1:1 relationship–the image will be exactly the same size as the subject.
  If the lens extension is more than twice the focal length, you get an image that is bigger than the subject. [Photography that magnifies a subject's size in this way is called *macrophotography*.]

- For close-ups of small, active creatures–tropical fish, for example–flash is the best source of light. It's intense enough to let you use both a small *f* stop and action-stopping shutter speed. With fish in a glass tank, however, be careful to avoid reflections. Try crosslighting, with one flash on each side of the tank, or light the tank from above.

- When hunting for birds or game with your camera, good binoculars can be very helpful in locating and identifying subjects you might otherwise miss. A 7x35-power pair of binoculars is generally considered about ideal for nature study.

- A good way to get interesting bird photographs in the winter is to set up a feeding platform outside a window that gives you a clear view. You can set up your camera inside and wait in comfort. If you sit quietly the birds usually will ignore your presence even if you're fairly close to the window.

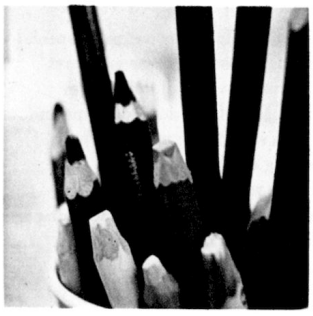
- It's easy to make quick copies of pictures, documents, etc. Attach the original to a well-lighted wall by thumbtacks or Scotch tape. Move in to the minimum focusing distance your camera allows. Focus carefully. If you hand-hold the camera, use a fast shutter speed. [Since subject is flat, you don't need much depth of field.] Bracket your shots.

- Early morning is one of the best times to photograph flowers –they may still be fresh with dew and the air often is calm, so you don't need to worry about subject motion.

- A long lens can give you spectacular results in sunset photography. This lens makes the sun look much bigger than normal in relation to foreground objects. Choose a day when sky conditions are right–with the sun veiled but not obscured by thin clouds or haze.

- In how-to pictures, be sure any hands shown are attractive and well-groomed. Fingernails should be clean and neatly cut. Attention to small details like this helps give your pictures a professional polish and make them more attractive.

- To add a touch of action to a how-to shot, it's a good idea to show a machine operating or a tool in motion, and shoot with a slow shutter.



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Page 2
Alfred Eisenstaedt; Leica with a 200-mm lens; Kodachrome Daylight Type film; 1/125 second at *f*/8; daylight.

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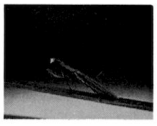

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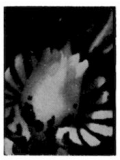

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Lesson

22

Professional procedures

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Good craftsmanship makes good pictures

Practically all the pictures you make are intended for *display* [in a home, office, reception room, photo album, portfolio, etc.] or *reproduction* [in a magazine, newspaper, brochure, catalog, etc.]. They will be seen by many people over a period of time. And they will be remembered just as you present them–including any shortcomings. Therefore, nothing but first-rate craftsmanship–the product of quality tools and sound professional procedures–should go into their making.

This means skill and care in lighting, exposing, and developing the picture. It means, too, making the best print you can for the purpose. And it means preparing the print neatly and attractively for reproduction or display. Our purpose in this lesson is to help you increase your skills along these lines, so that you can turn out pictures with a professional finish. We'll teach you many useful procedures for the studio and darkroom–procedures you'd otherwise need to learn by the often long and costly method of trial and error.

In the following pages, for example, we'll show you how to make flats and backgrounds that can help you achieve professional-looking effects even in a temporary home studio. You'll also learn about inexpensive items from the hardware store that you can use to keep your equipment well organized and save yourself time and trouble.

We'll demonstrate important darkroom skills, too, including how to develop your films by inspection. This method allows you to view the film during the time the image appears and regulate the development by eye. Many professionals use this method because of the more direct control it gives. It's especially valuable when you are processing negatives you suspect are overexposed or underexposed.

Still another skill you should be familiar with–especially if you do any professional portraiture–is negative retouching. We'll demonstrate the basic methods of working on a negative to lighten shadows that are too dark, soften wrinkles, and remove an unwanted background. It takes considerable practice to do skilled work with these methods, but the results in terms of pleasing your clients can make it well worth the effort.

We'll teach you an important advanced printing technique, too–the use of ferricyanide solution to control contrast, bring out highlights, and create special effects. Knowing how to use this method can help you improve the quality of your prints.

We'll also show you good methods for drying, mounting, and presenting your photographs. In these final stages of preparation, neatness is very important. Why go to the trouble of creating a fine picture only to weaken or destroy its impact by a sloppy presentation? It is irritating to a person who buys a photograph to have a careless-looking piece of work delivered to him–say a dog-eared, unspotted print, or one that was bent because it was not adequately protected by cardboard in the mails. On the other hand, a good job looks even better when properly presented.

The importance of good tools

It's sound professional procedure–and everyday common sense–to work with reliable tools of good quality. Being a photographer is demanding enough without the handicap of shoddy or unreliable equipment. So always use the best you can afford–and give it the best of care.

If you are like most photographers, you probably take a keen interest in your equipment, and look forward to adding to it or replacing it with something even better. This is natural and healthy–part of the fascination and fun of photography. But don't become "gadget happy." Keep equipment in proper perspective–as a means to an end, not an end in itself. Before you buy or replace any camera, studio, or darkroom equipment, ask yourself: Do I really neeed this? Will it really help me do a better job?

Although the best photographic equipment usually is more expensive than poor-quality items, you can't always relate price directly to quality. For example, some equipment is high priced because it has fancy and intriguing special features–which may or may not really help you make better pictures. On the other hand, if you shop around, it's often possible to find good buys in slightly used or discontinued items of excellent quality. A reliable photo dealer–one who will back up what he sells to you–is your best guide in this matter.

The importance of good housekeeping

The more photographic equipment you own, the more essential good housekeeping becomes. Many items are small, or are designed to fold up compactly when not in use. But you will need to set aside a certain amount of easily accessible space for storage. Have a place for everything. Then make it an unfailing practice to put things back in their proper place after you're through with them.

A certain amount of clutter and apparent confusion is almost certain to occur in a studio during a strenuous shooting session. But if you organize your equipment properly, set up as much of it as you can beforehand, and put it away as soon as you're finished with it, you can keep things running with a minimum of friction.

Good organization is equally important–perhaps even more so–in the darkroom. You must keep things neat and clean as you go along or you run the risk of getting dirty prints and negatives–or even ruining them. Have a supply of paper towels handy to clean and dry your hands. Put chemicals back in storage immediately after you finish with them. Quickly clean up any solutions that spill. Throw scrap ends of paper and other waste into a trash basket. *And clean up thoroughly when you are done.*

Using good tools, working in a well-organized way, knowing the special techniques that can help you do a better job, presenting your work with neatness and showmanship–these are the hallmarks of the professional. But even if you are an amateur, they are qualities and practices well worth cultivating. A good picture is worth your best, most painstaking effort at every stage regardless of whether it is made for sale or for your own satisfaction. As a hobby, photography will be much more rewarding to you if you set professional standards of craftsmanship for yourself–and try hard to meet them.

[*Facing page*] A good photographer uses reliable tools and is thoroughly at home with them. His pictures, whether taken for pleasure or profit, have sparkle and a finished, craftsmanlike quality because they are made with a sound knowledge of professional procedures. In this lesson we'll teach you a wide variety of these procedures, from making flats and backgrounds to improving problem negatives and giving your prints impressive display.
[Photograph by Joseph Costa]

Special methods of developing and testing negatives

The best way to make a good print is to begin with a good negative, shot with an adequate exposure. Unfortunately, however, it isn't always possible to get ideal negatives. For example, you might need to shoot in very dim available light where you can't accurately measure the intensity of the illumination, or you sometimes may need to shoot so quickly you have to guess at the exposure. And everybody makes mistakes from time to time–forgetting what film is in the camera, improperly setting the exposure meter, etc. Special methods of developing or testing your negatives offer you an opportunity to save the day when things like these occur.

Developing by inspection

Although the most convenient method of developing film is to use the time-and-temperature method we demonstrated in our lesson on black-and-white photography, there is an alternate method that sometimes is useful. It's called *developing by inspection* [or inspection developing] because you actually examine the film one or more times by the light of a very dim safelight during development. Thus you can see if the developing is progressing normally, and correct it if it isn't.

Some photographers habitually develop by inspection because they like the direct control this gives them. However, most find time-and-temperature developing more convenient for normal processing and use the inspection method only for emergencies. For example, if you think you may have considerably overexposed or underexposed your film, inspection developing gives you a way to check on the developing visually. You can learn to tell by looking at the film if it needs to be left in the developer longer than normal or removed sooner.

The first requirement for inspection development is a perfectly light-tight darkroom. If there are any light leaks this may fog the film when you load it into the tank or take it out to inspect it.

For panchromatic films, you need a *dark green* [*Wratten No. 3*] *safelight.*

For orthochromatic films, use a *red safelight.*

Use a 10-watt bulb in the safelight. Hold the film *at least* four feet from it. Don't expose the film to the light for longer than one or two seconds at a time, and *don't inspect at all until development is half over.* [The film becomes progressively less light-sensitive as developing continues.]

Here's a good step-by-step procedure to follow in inspection development:

1. Prepare your processing solutions just as you would for time-and-temperature developing.

2. With *all* lights out, load your film on a reel or holder. You can use the same tank you normally would for time-and-temperature development.

3. Place the film in the tank and set an audible timer to ring or buzz at the halfway point of the developing time you would normally use. Cover the top of your tank and turn on the safelight just long enough to give you light for setting the timer. Then turn off the safelight. Now you can remove the top of the tank if you wish.

4. When the timer sounds, turn on the safelight, take your film out of the developer, and examine its emulsion side *by reflected light from the safelight* as shown in the accompanying illustration. Do *not* hold the film close to the safelight and try to see through it. This is likely to fog the film, and will not tell you as much as will looking at the emulsion side by reflected light.

5. If processing seems to be coming along at a normal rate, return the film to the developer, reset the timer, turn off the safelight, and continue developing for the usual time. As a final check, inspect once more just before development is completed.

If the film seems to be coming along *too fast,* decide how much you want to reduce developing time and set your timer accordingly. Inspect again before putting the film in the stop bath.

If the film seems to be developing *too slowly,* decide on how much additional time you want to give it, and set your timer. Check by inspection once again just before stopping the development.

6. Put the film in the stop bath, and then fix for the normal time. After that, you can turn on the room lights and proceed as usual.

Evaluating negatives by inspection

There's a knack to inspection development. It takes a good pair of eyes and considerable experience to accurately judge the contrast and density of partly developed film. Inspection development is easiest to learn with the larger sheet-film sizes. Smaller negatives, such as 2 1/4 x 2 1/4 roll-film or 35-mm negatives, are more difficult to evaluate. Also, the very dim green light required for panchromatic films doesn't give you much illumination to see by.

One thing that will help is to give yourself enough time in the dark–several minutes at least–so your eyes become accustomed to the darkness. Also, remember to look at the surface of the film just as if it were a print, rather than through it, as you would the final negative. To gain experience, take some normally exposed films and examine them at the halfway point and then again just before developing is complete. Do not attempt inspection development with important pictures until you have acquired the necessary skill and experience in evaluating film by dim safelight illumination.

Correct: At the halfway point in developing [not before], lift your film out of the developer and examine its emulsion surface by *reflected light* from the safelight. [With roll or 35-mm film, pull out two or three frames from the reel.] Hold the film *at least* four feet from the light, and expose it only for a second or so. At this point the film still has an opaque milky quality overall because the unexposed, undeveloped emulsion and the coating on the back have not yet been dissolved. With practice and experience you can learn to judge contrast and density by just a quick look at the negative in this formative stage.

Wrong: Don't hold the film close to your safelight–this may badly fog the negative. And don't try to see *through* the film at this point–it is too opaque. You can tell more by looking *at* its emulsion surface by reflected light.

Developing a test negative

There's another way to check on films you believe to be badly overexposed or underexposed. If you don't want to develop by inspection, *develop a test negative.*

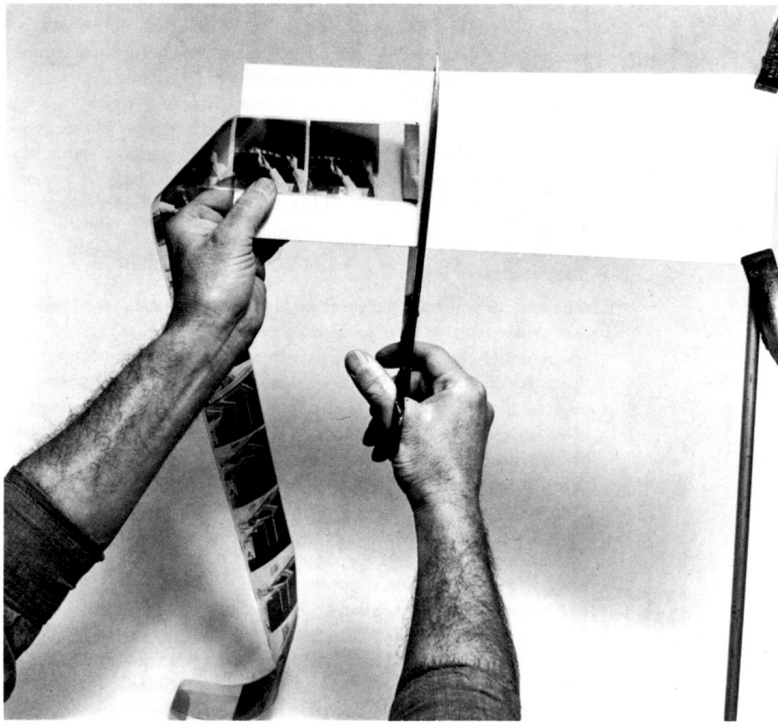
With individual sheets of film, this is a relatively simple procedure. Assuming all the pictures you take during a shooting session are given the same exposure under the same lighting conditions, you can select just one sheet of film, develop it, and look at the finished result before processing the rest. When using a sheet-film camera, many members of your Faculty often take a preliminary shot or shots just for this purpose if they're working on an important assignment. By developing the test shot first, they can evaluate the contrast and density and alter the exposure time, if necessary, for the remaining frames.

With roll or 35-mm film, you might shoot an entire test roll during a big assignment. However, here's a method for test developing just one or two frames from film you aren't sure of, before developing the rest.

With roll film, first take a developed roll of the same size as the film you are going to test [and preferably one that was exposed in the same camera]. Place the taped end of the roll and the last exposures against a piece of stiff cardboard and mark exactly the distance from the edge of the tape to the space between the second and third frames of film in from the end. Cut the cardboard to this length [see the illustration]. *With a 35-mm film*, measure in from the tip of the narrow leader to the space between the second and third frames.

Now use this cardboard as a guide in measuring and cutting a section off the film you want to test. In total darkness, unroll a strip of film exactly as long as the cardboard, and cut squarely across the film. You'll need to do this by feel alone, so practice on some waste pieces of film first. If you are accurate enough you'll make your cut between two frames. Place the remaining film in a light-tight container, load your short test section into your tank, and process it as usual. Then examine the two test frames and make any necessary changes in developing time when you process the remaining part of the roll.

If you accidentally cut through a frame, at worst you've spoiled only one shot on the roll. However, this is a small price to pay if by making your test negatives you can save the majority of the pictures.



Here's how to make a measure for the length of film to cut off a roll for testing. Take a piece of stiff cardboard. Hold the end of a developed roll of film against it, as shown here. [Use a roll from which you haven't trimmed off the piece of tape at the end.] Cut the cardboard. It should be exactly as long as the distance between the end of the tape and the space between the second and third frames.

What to do about problem negatives

In spite of the help that inspection development or using a test film can give, there may be times when you find yourself with a negative that is much too dense, too thin, too contrasty, or too flat to produce a good print by normal methods. If the picture is not important, don't waste your time trying to get a professional-quality print from an inferior negative. If the picture is important, and it's practical to reshoot, then this probably is the best thing to do.

Suppose, however, that you can't reshoot. There are methods for getting a good print from a problem negative, and we explain them to you below. [If these methods don't produce a satisfactory print, then–and only then–treat the negative itself in a special chemical solution to reduce it or to intensify it, as we will demonstrate.]

None of these procedures is likely to give you a print of as fine a quality as you would get from a good negative to begin with, but they may give you an *acceptable* print–and perhaps save an assignment. Therefore, they are important for any photographer to know.

If your negative is too contrasty

If the negative you are printing from is too contrasty, try one or more of the following procedures:

- Use a softer-contrast grade of paper or a softer-contrast filter.
- Print in important highlight areas while holding back the shadows.
- Dilute your paper developer with twice as much water as usual–say 4:1 if 2:1 is your usual proportion.
- Use a special soft-working developer such as Kodak Selectol Soft.
- Use a diffusion or cold-light enlarger rather than a condenser type. [The former generally give a softer effect than the condenser type.]
- Use a water-bath treatment. The most effective way to do this is to put the print in the developer and agitate until the image just begins to appear. Then transfer the print to a tray of water and gently immerse it. *Do not agitate.* The developer will tend to quickly exhaust itself in the heavily exposed areas, but continue working in the shadows, thus reducing contrast. When all developing action has stopped, you can repeat the process if necessary [using fresh water in the water tray], until you get the desired degree of darkness in the print. Then wash and fix as usual.

If your negative is too flat

If the negative you are printing from is too flat, one or more of these procedures may solve your problem:

- Use a higher-contrast grade of paper or a higher-contrast filter. Some printing papers are available in grades up to 6–giving more contrast than it is possible to obtain even with the highest-contrast filter for variable-contrast paper. [See the section on developing and printing in your Technical Manual for a listing of popular contact printing and enlarging papers and their available range of contrast grades.]
- Use a more concentrated working solution of developer than normal –for example, dilute your developer 1:1 if 1:2 is normal, or use undiluted stock solution if the negative is extremely flat.
- Use a condenser enlarger rather than a diffusion or cold-light type.
- Add *potassium bromide* to the developer. This is a "restrainer" that holds back development in the highlights and lets you develop the print longer than normal, thus producing blacker blacks without fogging the whites. Mix a 10 percent solution of the chemical. Add 3 ounces of this solution to 32 ounces working solution of your developer.
- Make a print that is *slightly darker than normal.* Then bring out the highlights with ferricyaniding as we demonstrate later in this lesson. Finally, intensify the blacks with a bath of *selenium toner.* [This is available at most camera stores, with detailed directions for its use.]

Reducing a dense negative

Sometimes a negative turns up in the hypo just too thick to print well. It may have received too much exposure, too much development, or both. It also may be too flat, or it may be too contrasty. By a process called reducing, you usually can bring the negative to a normal enough state to get an acceptable print.

If you want to clear up shadow areas and fog, as in a dense, flat negative, you should use a *cutting reducer.*

If you want to reduce density and somewhat lower the contrast, you should use a *proportional reducer.*

When you want to reduce highlight density without destroying shadow detail, as with an overdeveloped negative of a contrasty subject, you should use a *superproportional reducer.*

Cutting reducer: The standard cutting reducer is *Farmer's Reducer* –a mixture of potassium ferricyanide [called ferricyanide for short] with sodium thiosulfate [common hypo] in water. The ferricyanide converts some of the metallic silver of the image into a metallic salt which the hypo dissolves. You can buy Farmer's Reducer in package form or easily prepare it yourself.

First mix a saturated solution of ferricyanide. A small amount of this–say 8 or 16 ounces–ought to last you quite a while. To make such a solution you add ferricyanide crystals to the water until the solution is a dark orange-brown and no more crystals can be dissolved. [You should notice undissolved crystals on the bottom of the container even after it's been standing for several hours.]

For cutting reduction, follow this procedure:

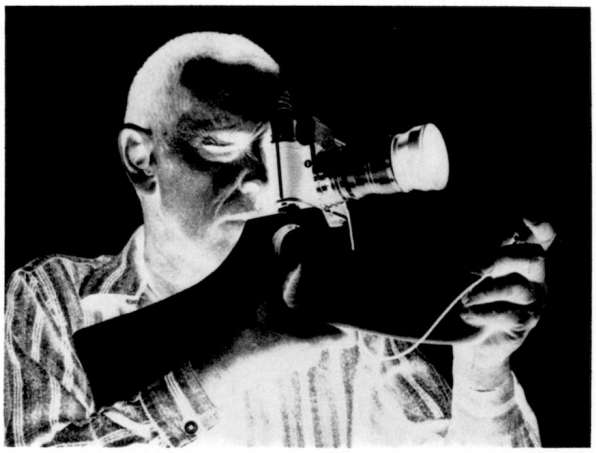
1. If your negative is dry, soak it for 5 or 10 minutes before reducing.
2. Pour 16 ounces of water into a white tray. [You can see the reducing action most easily in a white tray.] Add 2 ounces of hypo and stir until dissolved.
3. Add 1 ounce of saturated ferricyanide solution to the tray and mix.
4. *Immediately* immerse the negative in the working solution and agitate. Once combined, the hypo and ferricyanide won't keep long. Agitate the negative frequently to avoid streaking or mottling. At the end of 10 minutes, consider the mixture exhausted and pour it out. Mix a fresh batch if you need to reduce the negative even more.
5. When the proper degree of reduction has taken place, remove the negative and rinse it quickly in running water. The reducing action will continue momentarily after you remove the negative, so try to anticipate the final stage by a few seconds.
6. Wash the negative thoroughly and dry it.

Proportional reducer: For an approximately proportional reducer, you can use a two-bath ferricyanide and hypo system. This is particularly recommended for negatives that are too dense and contrasty because overdeveloped. Follow this procedure:

1. Process the negative in a solution of about one-half ounce of saturated ferricyanide solution in 16 ounces of water. Keep the negative in this solution for about a minute, agitating constantly.
2. Transfer the negative to a second tray containing a working solution of 2 ounces of hypo in 16 ounces of water.
3. After a few seconds you should notice a slight decrease in density. Rinse the negative and return it to the ferricyanide bath.
4. Repeat this alternate bathing first in the ferricyanide, then in the hypo until you get the degree of reduction you want. For the final bath, leave the negative in the hypo for 4 or 5 minutes and then wash.

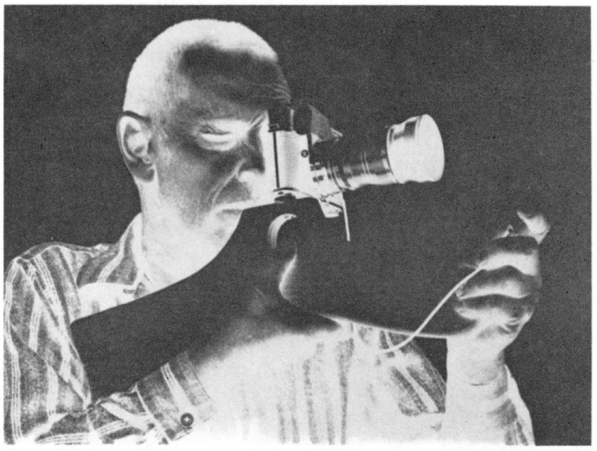
Superproportional reducer: For negatives that need treating in a superproportional reducer that *greatly reduces contrast,* see the miscellaneous section of your Technical Manual.

Here are the basic ingredients for Farmer's Reducer:
1 Potassium ferricyanide crystals.
2 Saturated solution of these crystals dissolved in water–it's dark orange-brown in color.
3 Sodium thiosulfate [common hypo].
4 Graduate for measuring out the hypo. A basic formula calls for 2 ounces of hypo by volume, as you see measured here, added to 16 ounces of water. To this you add 1 ounce of your saturated ferricyanide solution to make a working solution of reducer.

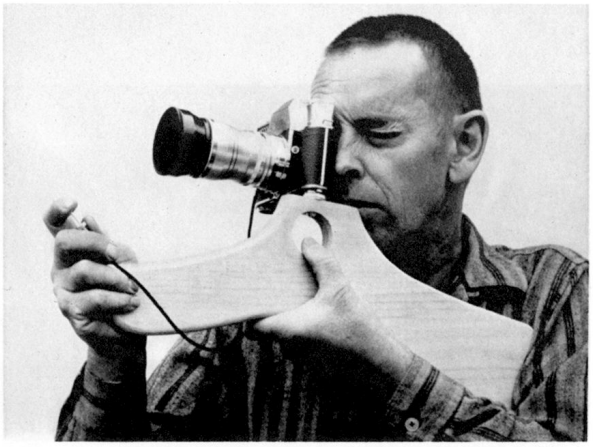


Negative before reducing: This negative is much too dense and contrasty to give a good print. The highlights are excessively blocked up–the result of a combination of overexposure and overdevelopment.

Here's the best print we could make from the negative at left on a low-contrast paper. It's harsh looking, with washed-out highlights and black shadows.



Negative after reducing: The negative looked like this after being treated in a two-bath proportional reducer. Because the darkest shadow areas were transparent to begin with, reducing the density of the highlights and middle tones has the effect of reducing contrast overall.



Now we've been able to make a print of acceptable quality with ease, using a normal [No. 2] paper. The highlights contain much more detail than before, and the print is less harsh looking.

Intensifying a thin, flat negative

Some negatives are so hopelessly thin and flat that even special printing procedures to increase contrast won't give you a usable print. In that case, you may be able to save the day by *intensifying* the negative–treating it with special chemical solutions that build up density and contrast in any areas where there is some metallic silver. [Of course, intensification won't give you details that aren't already on the negative; it can only strengthen what's there.]

There are a number of types of intensifiers, but the most convenient to use is *chromium intensifier*–available in packaged form at most photo dealers'. This moderately intensifies the negative.

Intensification always involves some risk that you may spoil the negative. To be on the safe side, make a print of the best quality possible before you treat the negative.

Chromium intensifier can be used in ordinary room light. Treat only one negative at a time–otherwise you may get streaky, uneven results. Here's the procedure to follow:

1. Fix the negative in an acid hardening fixing bath and wash thoroughly. If you want to treat a negative that's already dry, first soak it in water for at least ten minutes.

2. Chromium intensifier comes in two packets of powder–one to make a *bleach* and one to make a *clearing bath*. Mix these with water according to the directions on the package.

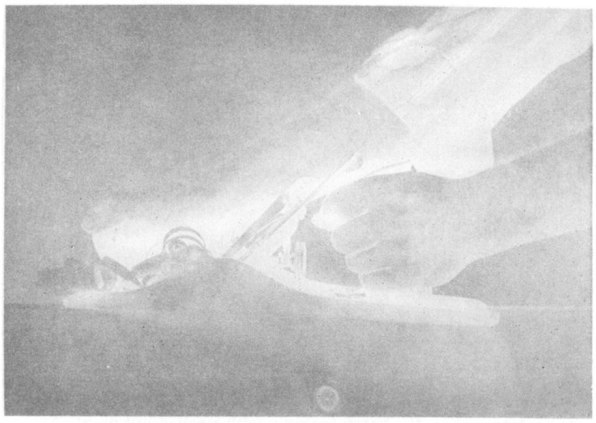
3. Immerse the negative in the bleach bath until the silver image turns yellow. Bleaching normally takes about three to five minutes at 68 degrees F.

4. Rinse the negative in water and immerse it in the clearing bath for a few minutes until the yellow stain is removed and you have a nearly white negative.

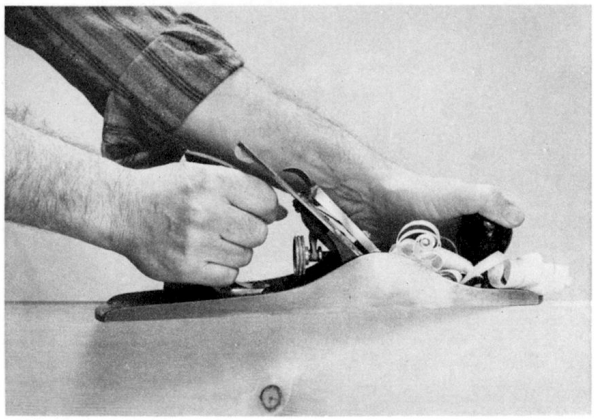
5. Rinse the negative in water and then redevelop it in any quick-acting, nonstaining developer until the white image turns black. The redeveloped image will be stronger and have more contrast than before. An M-Q type of universal developer is good, or you can use D-72 or Dektol diluted 1:3. However, fine-grain developers are not recommended for this purpose.

If one treatment doesn't give you enough intensification, wash the negative and repeat Steps 3, 4, and 5.

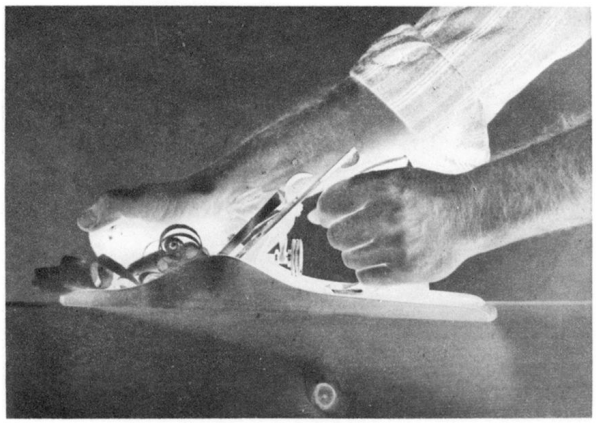
6. Finally, wash the negative for ten to twenty minutes and dry it. [You don't need to fix the negative again.]



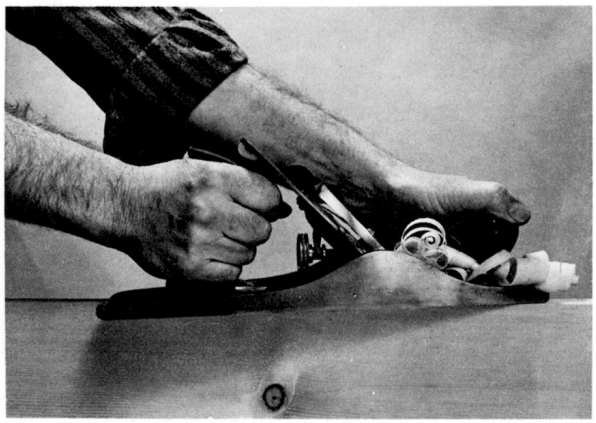
Negative before intensification: Here's a very weak, flat negative. It contains so little contrast and density it's next to impossible to make an acceptable print from it.



Here's the best print we could make, using a high-contrast [No. 4] paper and a concentrated paper-developer solution. We couldn't get the blacks any blacker without having the middle tones go too dark and the highlights too gray. It's a weak, overly soft print.



Negative after intensification: Here's the same negative after treatment in chromium intensifier. When redeveloped after bleaching, the negative has considerably more density and contrast than it did before.



Now look at the print we get on a normal [No. 2] paper! The print has normal contrast, with strong blacks, clean highlights, and a good range of middle tones in between. However, don't expect intensification to perform miracles. There must be at least a trace of the details on the original negative for the solution to work on.

How to retouch negatives

There are two basic reasons for retouching a negative: [1] *to improve the image,* bringing it closer to the quality you wanted when you took the picture, and [2] *to improve the subject,* getting rid of flaws and blemishes. Retouching is accomplished by working on small areas of the negative with an etching knife, pencils, and dyes. You use these to lighten or darken details, to bring things out more sharply, to soften them, or to eliminate them altogether, as we'll demonstrate on the following pages.

It is not the purpose of retouching to make up for careless or inept photography. It's much easier and more effective to properly light, expose, and process your picture in the first place than it is to attempt to salvage a poor negative by retouching. However, retouching is an important skill to know if you specialize in some types of professional photography. In portraiture, a sharp lens may record the lines and blemishes of a face more harshly than the eye sees them. Retouching the negative frequently is the most practical method to soften these wrinkles and remove blemishes. Also, retouching sometimes is required in advertising and fashion pictures to show off the product to best advantage.

To acquire skill in retouching, it's best to practice on 4x5 negatives. Retouching can be done most easily on a negative of this size or larger –one reason why portrait photographers often prefer to use a 4x5, 5x7, or 8x10 camera. It is possible, with practice, to retouch smaller sheet-film negatives or even 2 1/4 x 2 1/4 roll-film negatives. But this calls for a high degree of skill and good eyes, and only less detailed retouching can be done because of the small size of the negative. So, first, learn how to retouch larger negatives–and remember that if you are going to do retouching, it's wise to shoot with a 4x5 or larger camera.

Don't expect to master retouching the first few times you do it–it requires much practice. But try out on spare negatives the methods we show you on the following pages. Concentrate on one technique at a time–etching with a knife, using a pencil, or applying opaque, etc. Keep practicing until you can handle this one technique successfully, then turn to another. This way, you'll gradually build up the dexterity and experience you need to do a good job on finished negatives.

Tools and materials for negative retouching

At right you see the most commonly used tools and materials for negative retouching. You won't need all of these at first, nor is it likely you'll ever use all on any one negative. But if you do much retouching you'll eventually want most of the items shown.

1 Watercolor palette: This is for mixing small quantities of the dyes used in retouching. If you have a palette for print spotting, you can use that.

2 Jar of opaque: Opaque is a thick, pastelike red paint you dilute to brushing consistency with water. It's applied to areas of the negative you want to make blank white in the print.

3 Bottles of dye and dye remover: These are available in sets of three, as shown. One bottle contains a red dye [used to darken larger areas], one contains black dye [for darkening smaller areas], and one contains a remover to correct mistakes made when applying the dyes. [The small square sponge is supplied with the set and is used to blot up excess dye from the negative.]

4 Cotton swabs: You use these to remove excess water from a wet negative, blot up excess dye, apply retouching fluid, etc.

5 Retouching fluid: This is sometimes applied to a negative to give it a little more "tooth" so that it takes pencil marks more readily.

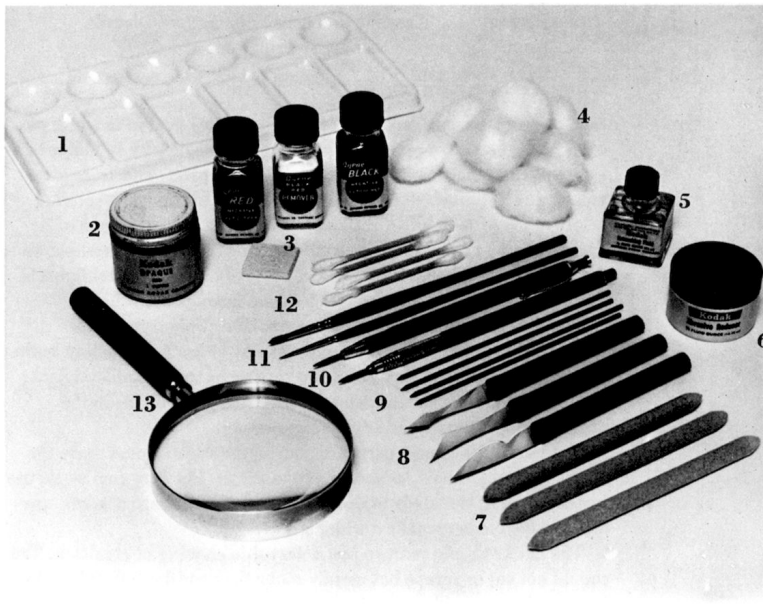
6 Abrasive reducer: This is a paste containing a very fine abrasive. It is rubbed on a negative to wear away some of the emulsion in areas where you want to reduce density.

7 Paper stumps: You use these to apply the abrasive reducer.

8 Retouching knives: A knife is a most important tool in negative retouching. It's used to shave off emulsion from areas or fine details. You can buy retouching knives in various shapes [three are shown here], or you can make your own from a hacksaw blade. This is demonstrated in the section on things to make in your Technical Manual.

9 Pencil leads: Try a 3H and a 5H as a starter; later you can add other grades. The leads are used to darken areas of the negative and soften details. You could use an ordinary pencil, but leads and holders are recommended because you can replace the lead after it wears down and you always have a holder of convenient length for working.

10 Two holders for your leads: Use one for a harder lead, the other for a softer one.



11 Sable brushes: These are used to apply retouching dye to small areas. Try a No. 0 and a No. 3 to start; add other sizes as you need them.

12 Cotton Q-tips: These are useful for applying retouching dye to larger areas of the negative.

13 A magnifying glass: This makes retouching easier by giving you an enlarged view of your work. You can hold it by hand to inspect your work from time to time. If you want to use it while actually working on the negative, get a stand to hold it–you need both hands free.

Working on a negative

Your first step in retouching a negative should be to make a print from it so you can see what, if anything, you need to retouch. Are there spots, blemishes, and other flaws that should be removed? Wrinkles and lines that should be softened? Shadows that ought to be made lighter or highlights that ought to be darker? Decide what you need to do before you begin to work.

To do negative retouching you should have a light box to work on. You can buy a light box or make one according to directions in the section on things to make in the Technical Manual. If you do a considerable amount of retouching, you'll eventually want to acquire a *retouching stand* designed especially for this purpose.

If the illuminated surface of the box is considerably larger than the negative you're working on, take a large sheet of black construction paper, cut an opening in the center of it approximately the same size as the negative, and tape the paper to the illuminated surface. The paper will act as a mask, saving your eyes from unnecessary glare that could cause eyestrain during a long working session. However, don't tape the negative over the opening in the paper–you'll probably want to turn the negative first one way, then another, as you work on it.

The general procedure to follow in retouching is this:

1. Do your etching with the knife–removing emulsion in areas where you want to reduce the negative's density.
2. Apply dye to areas of the negative that need to be darkened.
3. Apply retouching medium.
4. Use your pencil leads to add density to very fine details.
5. Opaque any areas you want to print pure white.

Using a retouching knife

A retouching knife [also called an *etching knife*] is used to shave off some of the emulsion on a negative to reduce the density in that area. Consequently, the area will be *darkened* in the print. The knife gives you an effect similar to what you might get by adding dark spotting colors to the print itself. A retouching knife has the advantage of enabling you to work very accurately on fine details–for example, to add hair where it needs filling out, to remove unwanted catchlights in a subject's eyes, or to eliminate reflections from glasses.

At upper right, Harry Garfield's wife, Helen–an expert on retouching negatives–shows the correct way to use a retouching knife. The 4x5 negative is placed *emulsion side up* on an illuminated light box. The light is bright enough to clearly reveal all details in the negative but not so bright as to cause eyestrain.

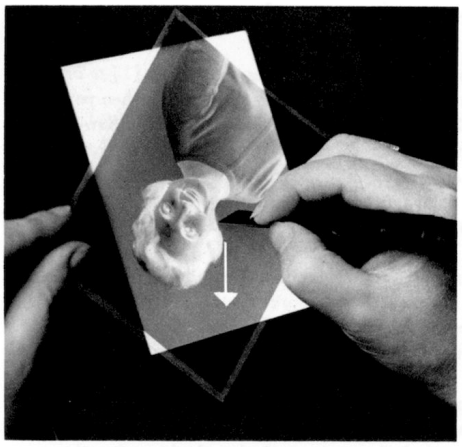
Hold the knife almost perpendicular to the negative and make the stroke toward yourself, as shown by the arrow. For very fine work, use just a corner of the blade to shave the emulsion. On larger areas, use more of the blade to make a wider stroke.

The stroke should remove just a very thin shaving of emulsion. You should not cut or scrape but merely *shave* the emulsion off. When this is properly done with a correctly sharpened knife, the removed emulsion will curl up just like the wood shaving made by a plane. Work carefully and slowly, taking off just a bit of emulsion at a time.

It's essential to use a good-quality blade correctly sharpened. The cutting edge must have a slight "burr"–a very fine, slightly up-curled end. This burr is what actually shaves off the emulsion. See the side-view diagram of the blade–it shows the burr and the correct position of the blade for a shaving stroke. [Directions for sharpening a retouching knife to get a burr are given in your Technical Manual, along with directions for making the knife.]

You'll need to practice to get the knack. Use spare negatives. Work on dense [highlight] areas and try to lighten them. Then try to remove any dark spots or blemishes on the negative.

For large areas where you want to reduce the density slightly, abrasive reducer may do the job more easily than a knife. Apply the abrasive with a cotton swab or a paper stump and a circular motion, exerting gentle pressure. When you've reduced the density to your satisfaction, clean off the reducer with a cotton swab moistened in turpentine or carbon tetrachloride.



[*Left*] When using an etching knife, make short shaving strokes toward yourself, as indicated by the arrow here. [*Right*] A correctly sharpened knife has a burr at the tip, as shown in this enlarged side view. The burr shaves off a very thin layer of emulsion. The blade should lean slightly in the direction of the cut.

Using dyes

The red or black dyes used in retouching are translucent. You employ them to build up the density in areas of the negative without obscuring details. In the print, of course, these dyed areas will reproduce *lighter*. Properly applied, dyes can produce very subtle and natural-looking effects, such as making heavy shadows lighter.

You can use either red or black dye. The black is generally used for small details. The red is somewhat more opaque and is better for large areas.

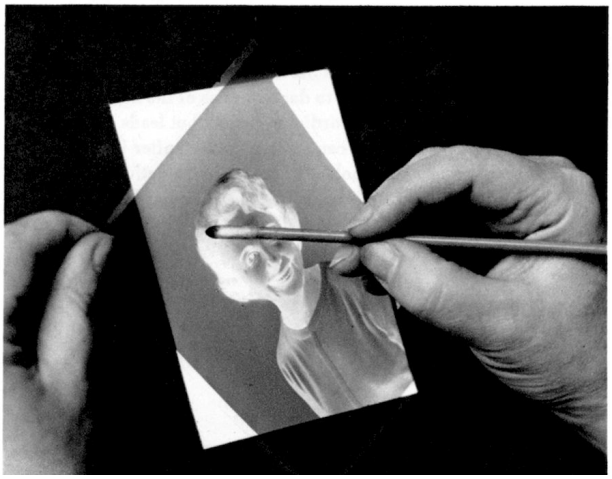
First, make sure your negative is free of dust. Use a cotton swab to dampen the surface of the negative before you apply dye.

Put a little water in a saucer or mixing palette and add a drop or two of dye. Add more or less water, depending on the intensity of dye you want. You'll need to experiment a bit on a practice negative to learn the degree of dilution that's best.

Use a Q-tip [or a cotton swab on a stick] dipped in diluted dye to darken fairly large areas of the negative, as shown below. For smaller areas, use a small brush.

Dip your brush or swab in the diluted dye, and wipe it almost dry on facial tissue or a clean cloth. Then blend the dye into the area you want to lighten. Never let a pool of wet dye accumulate on the negative. It will start to dry and leave hard rings or edges that will print much too light. Immediately blot up any wetness with a fresh dry cotton swab.

Dye can be added to the emulsion side or the film-backing side of the negative. If added to the emulsion side it tends to look a little darker when wet. Therefore, it may be easier to judge the effect if you work on the back [shiny] side.



Using a pencil lead

To add density to very fine details, a pencil lead usually is best. You must use a lead that is correctly shaped and sharpened, as shown below. If the point is sharp enough, you can make very fine marks that will blend together and appear as a tone rather than a series of separate marks.

Of course, if the negative is greatly enlarged, the pencil marks will be enlarged, too, and the retouching will become apparent. Therefore, retouching by pencil usually is not practical with smaller negatives that require considerable enlargement to make a finished print.

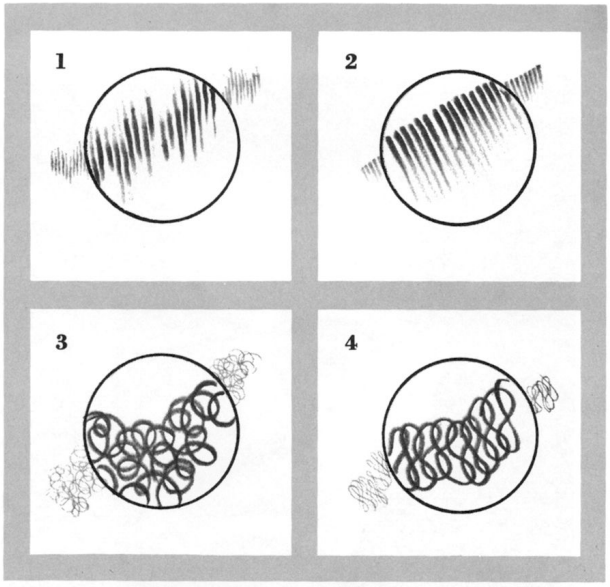
Some films today have a "toothed" surface that takes pencil marks well—especially on the emulsion side. However, if you are not using one of these, you'll need to treat the entire negative with retouching fluid [also known as *dope*] before you start working. Retouching fluid is available in bottles. Add a drop or two on the negative and then cover the negative completely by smoothing the dope on with a cotton pad, in a circular motion. Let the dope dry thoroughly.

By doing your pencil work *after* the etching, you have a chance to correct any errors made with the knife. If you removed too much density by etching, you can replace it with the pencil.

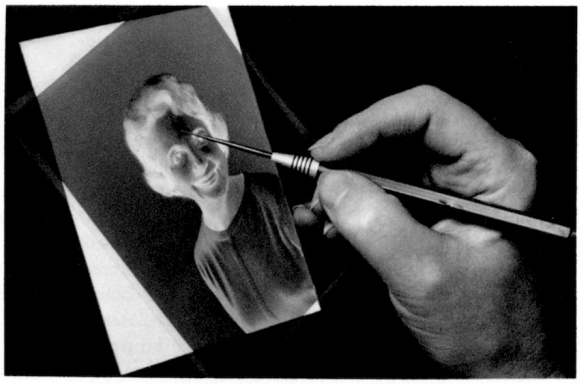
A pencil lead often is used to soften wrinkles and remove skin blemishes. At top right, Helen Garfield is softening a wrinkle on the subject's forehead. To see the effect that pencil work can give, study the detail of the eye.

Short, irregular, overlapping strokes usually are best. Some typical strokes are shown at right. You might use any of these or devise your own. The important thing is to build up the tone *unobtrusively*.

Use a harder grade of pencil in thinner areas of the negative and softer grades in the more opaque areas.



The enlarged details in the circles show four useful types of pencil strokes for negative retouching.
1 Use irregular, staggered parallel lines to keep within a fold or wrinkle. Make the strokes longer or shorter depending on the width of the wrinkle, and heavier in the center of the stroke than at the ends.
2 To soften a narrow shadow, use a series of parallel lines heavier at one end.
3 A good way to build up density gradually over a larger shadow area is with interlocking loops.
4 Interlocking figure 8's like these provide another effective way to lighten a shadow area.



A long, tapered, and very sharp point is best to work with.

Sharpen your pencil lead by twirling it between sandpaper like this.

Here's a detail from a print made from an unretouched portrait negative. The lines under the eye are somewhat too heavy.

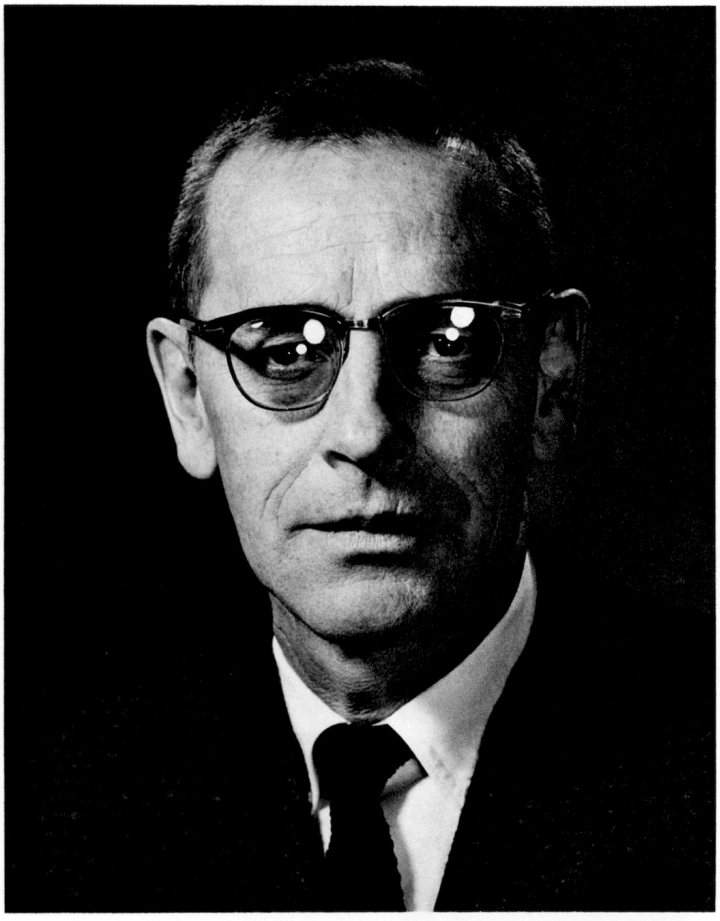
This detail shows where pencil shading was added to the negative.

This is the same detail printed from the retouched negative. Notice that the lines under the eye are slightly softer now. However, the effect is natural and the retouching is unobtrusive. *Good retouching never calls attention to itself.*

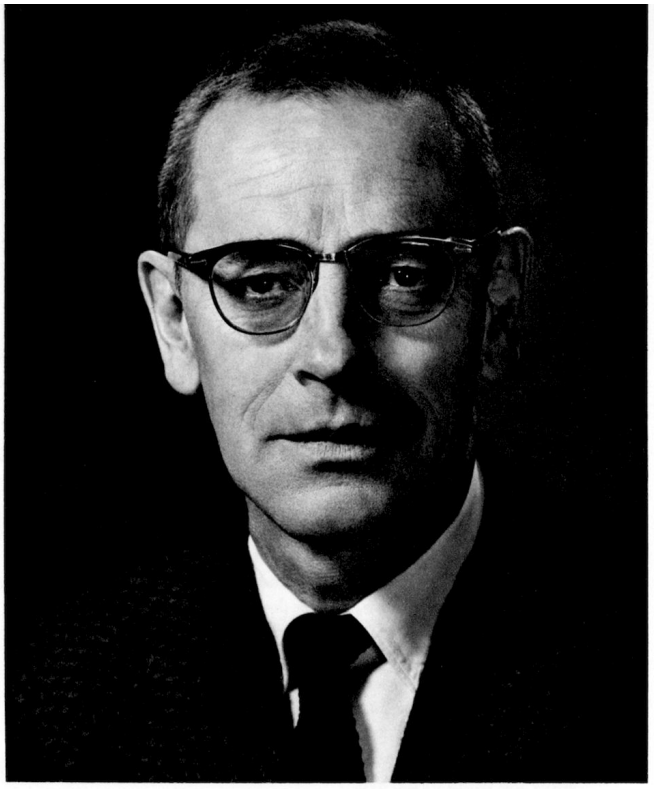
Negative retouching in portraiture

Negative retouching is particularly important in portraiture. Obviously, you'll save yourself work if at the time of the sitting you light the subject carefully, avoid hot spots, and perhaps use a soft-focus lens to reduce the wrinkles in a face. But negative retouching gives you another chance to correct flaws and improve the subject's looks by applying the methods demonstrated in the previous pages.

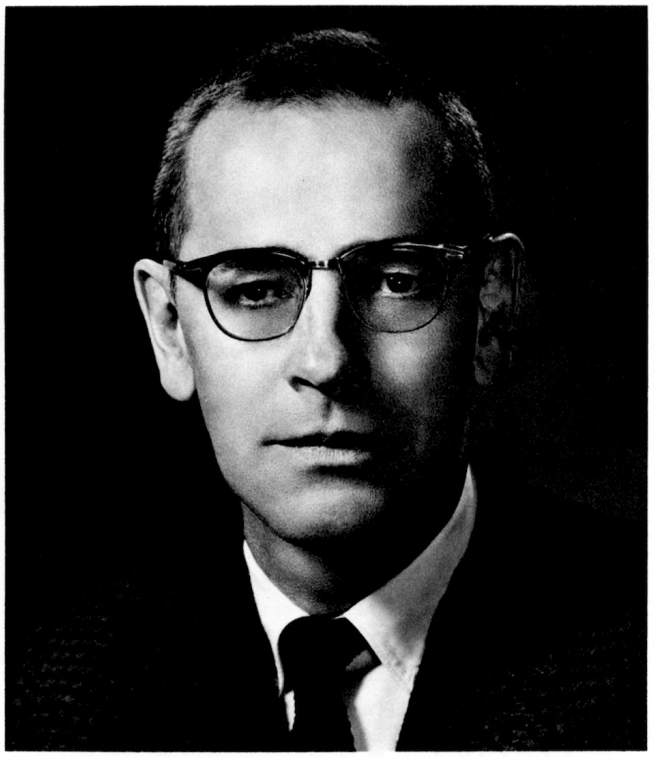
It takes a skilled hand to retouch portraits effectively. Don't expect to acquire this skill immediately–it comes only with practice. As a guide to your own work, study the accompanying pictures. The basic portrait was taken by Harry Garfield to show three common problems: [1] dark lines and wrinkles, [2] reflections in eyeglasses, and [3] a highlight that's too shiny. We've reproduced a print from an unretouched negative, from a properly retouched one, and from a negative in which the retouching was deliberately overdone. Notice how unobtrusively the retouching [by Helen Garfield] is handled in the correctly retouched picture, and how unnatural the effect is in the poor example. Remember to work slowly, making a few small changes at a time, and stop before the portrait appears obviously retouched.



Print from an unretouched negative: The most obvious fault in this portrait is the presence of large reflections in the subject's eyeglasses. Also, the wrinkles are somewhat too harsh, and there's a small highlight on the left side of the forehead that would be better softened.



Print from a correctly retouched negative: Here Helen Garfield removed the eyeglass reflections by shaving off some of the emulsion with an etching knife and matching the tone and texture of the shaved areas to surrounding areas with a pencil. She darkened the forehead highlight in the same way–by a combination of etching and penciling–working so unobtrusively that the retouching is not apparent. A restrained application of pencil lines subtly softens the wrinkles without eliminating them.

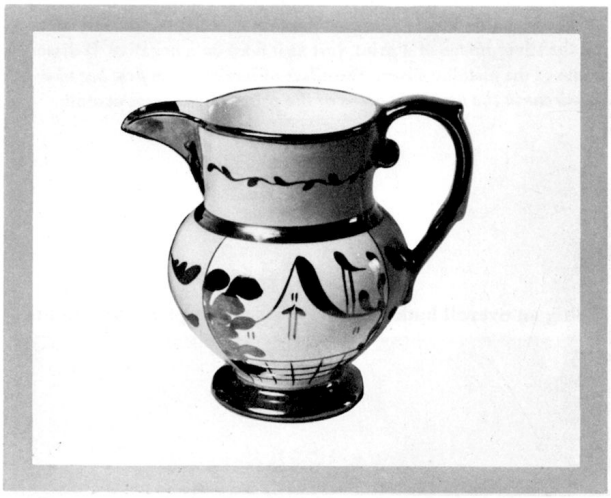


Print from an overly retouched negative: Don't carry things too far, as happened here. The retoucher has removed almost *all* the wrinkles with a pencil. The face now has a "worked-on" look and appears quite bland and characterless. With retouching, lean on the side of too little rather than too much.

How to opaque a negative

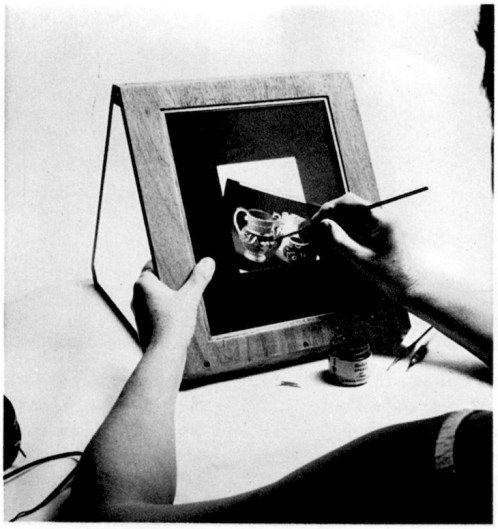
Sometimes [particularly in advertising photography] you may find it necessary to *block out* a background and any details it contains so the background will print pure white. You might do this because you want to silhouette the subject or create a blank background on which type will appear. An area on a negative can be blocked out with opaque—a thick, reddish, pastelike substance. You apply opaque with a brush. When it dries, it prevents any light from shining through the treated area of the negative.

To prepare opaque, place a small quantity in a saucer or palette. As it comes from the jar, opaque is rather thick in consistency. Mix a little water with it to thin it out. Brush some on a scrap negative to test it. The opaque should go on smoothly and dry flat, without ridges or rough areas. On the other hand, it shouldn't be so thin that it lets light through when you hold the negative up to the light. When your opaque is mixed to the proper consistency, follow the steps we demonstrate in the three illustrations below.

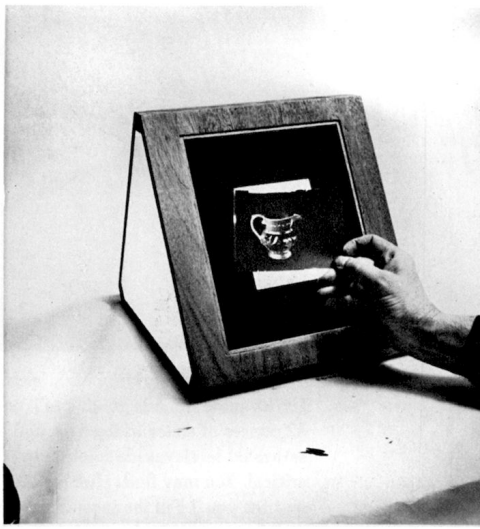


At top right is a print from an unretouched negative of three small pitchers, such as might be photographed for a catalog. Let's say you are asked to produce a print that shows only the foreground pitcher, and you can't reshoot the setup. By applying opaque, you can block out the other two pitchers and the surrounding area so that the pitcher up front is silhouetted against a pure white background when reproduced.

1 Place your negative *emulsion side up* on a light box. If you have a steady hand, and a sharply defined outline is desirable, outline the subject with opaque, applying it with a small camel's-hair brush. If you want a softer outline, or find it difficult to control the brush, first outline the subject with a band of shading, using a soft pencil [4B or 5B], as is being done here. Make light marks close to the subject and increasingly darker ones as you move away from it.



2 For a soft edge, turn the negative over and apply opaque to the back of the negative, blending it into the area where the darker pencil marks show through. [For a sharp edge, without a pencil outline, it's best to do all the work on the emulsion side of the negative as here.]



3 Next, fill in the entire area you want to block out. Brush the opaque on smoothly and evenly, leaving no cracks or pinholes. When the opaque dries [it does so very quickly], it should completely block off the light. If necessary, you can apply a second coat once the first is dry.

Using ferricyanide to improve your prints

So far we've concentrated on professional procedures you can use to correct flaws in your negatives and improve their quality. Here and on the following pages we demonstrate an important advanced technique in printing–using ferricyanide to create sparkling highlights, control contrast, bring up details in shadow areas, and remove dark spots and blemishes.

Ferricyanide is used to treat prints in the darkrooms of many of your Faculty members and other professionals. Properly applied, the procedures we will show you can be as valuable as dodging or burning in. Ferricyanide treatment can help you make prints of first-rate quality. And it can help you get a good print when other means fail.

Ferricyanide solution, in combination with hypo, acts as a reducer on the silver image of a print, just as it does on a negative. It dissolves some of the metallic silver. The effect of ferricyanide *first becomes apparent in the highlight areas of the print.* These areas contain relatively little metallic silver to begin with, and the silver is quickly dissolved, leaving blank paper. The ferricyanide works on the darker areas of the print, too, but it takes more reducing to dissolve enough silver to make them noticeably lighter. Keep these facts in mind–they are important in controlling ferricyanide treatment and its effect.

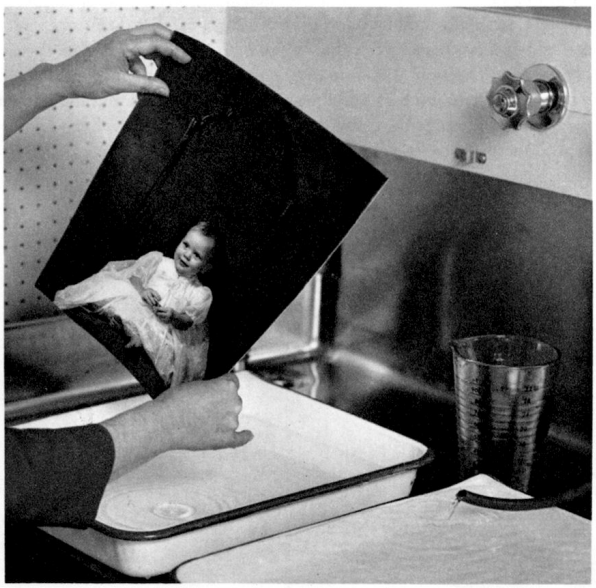
There are two basic ways of using ferricyanide on a print: [1] giving the print an overall bath in the reducing solution, and [2] applying the solution only to selected areas of the print. You can perform either of these processes after the print has been fixed, and in ordinary room light. Thus you can watch the reduction and control it.

Ferricyanide treatment is no cure-all nor is it a substitute for careful exposing, developing, and printing. Like any photographic technique, don't overdo it to the point where the effect becomes obvious. On the other hand, used properly, as we'll show you here, it can be one of your most valuable darkroom methods.

Using an overall bath of ferricyanide to improve highlights

To give a print sparkling highlights, an overall bath in ferricyanide often is good. You'll need two darkroom trays. Pour 32 ounces of water in the first, and add about a teaspoonful of saturated ferricyanide solution to it. [The exact amount isn't critical. You may find, after testing, that a little more or less works best for you.] Fill the second tray with water.

After your print is properly fixed, remove it from the hypo, let the excess hypo drain off, and slip the print into your tray of ferricyanide solution, as we've done here. Immerse the entire print as quickly as you can, and be sure all of it stays immersed or you may get a blotchy, uneven effect. *The ferricyanide solution will mix with the residue of hypo on the print and immediately begin to dissolve some of the metallic silver.*



Agitate the tray and watch the print. *Pay particular attention to the highlights.* When they seem just about light enough, remove the print and look at it closely, as we are doing here. If the amount of reduction seems right, immerse the print in the water tray and agitate. Then wash the print thoroughly and dry it as usual.

Don't let the reduction process go too far–you can't put back any silver that's dissolved. However, you can repeat the treatment if you decide you want to lighten the print even more. Just put the rinsed print back in the *hypo* again, let it soak for a minute or two, and then repeat the entire process. Finally, wash the print thoroughly and dry it in your usual manner.

If, for some reason, you want to ferricyanide a print that's already fixed, washed, and dried, follow these steps: Use three trays–one with hypo, one with ferricyanide solution, and one with water. First, soak the print in water for a minute or two, then soak it in hypo. Then proceed exactly as already explained.

Depending on how much ferricyaniding you're doing, the ferricyanide solution may become exhausted. If its effect seems to be weakening, empty the tray and mix up a fresh batch of solution.

Controlling contrast with ferricyanide

Ferricyanide treatment gives you a precise way to control the contrast in your prints. It sometimes produces exactly the result you want when other methods–changing the contrast grade of your paper or filter, or dodging or burning in–don't work. You probably won't need to ferricyanide every print you make, or even most of them. But often it's the best solution to a problem in contrast control.

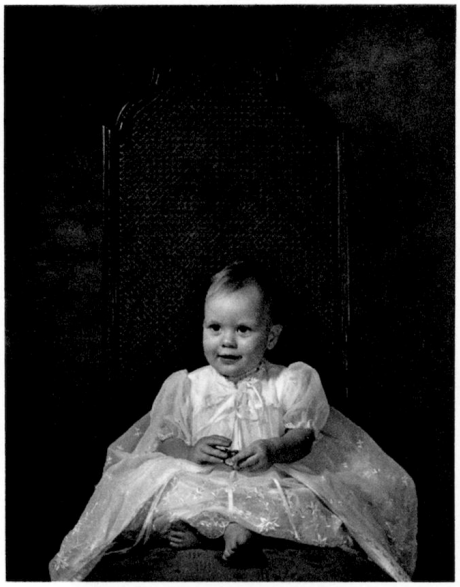
For example, suppose you have a negative that's somewhat on the low-contrast side. You might find that if you make a print with clean white highlights, the darks aren't strong enough. So you change the exposure and get rich full blacks. But now even the brightest whites are a little muddy. If there are many small highlights, it's impractical to try to burn them in. Ferricyanide treatment may offer the answer here. You can make your print with good rich blacks, then bathe the print in ferricyanide solution, using the method demonstrated before, to brighten the whites. As we pointed out, the reducing action of ferricyanide works fastest on highlight areas. If properly controlled, the treatment will *pick up your highlights before it has much noticeable effect on darker areas.*

To demonstrate the subtle but effective contrast control that ferricyanide gives, we've reproduced three prints made by Harry Garfield, plus enlarged details from them so it will be easier to compare the differences. His problem here was to print a portrait for a customer. Because the subject was a baby, he wanted the print to be on the soft, gentle side. [A straight print on No. 2 paper had turned out a little too harsh.] A print made on a soft [No. 1] paper had about the overall contrast he wanted, but the skin tones were a little too dark, and so was the white dress.

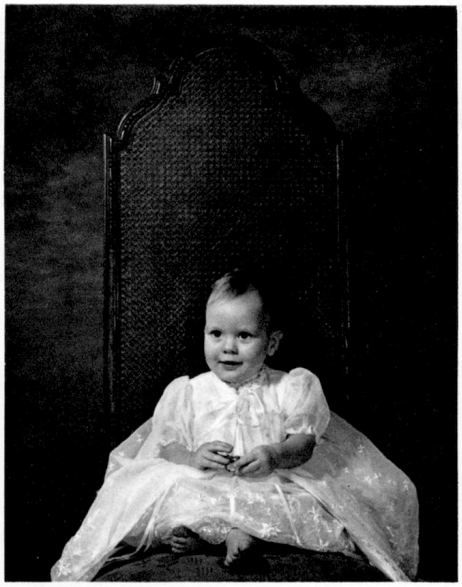
Here's how he solved the problem. He made a print on No. 1 paper [Picture 1]. He made this print a little darker overall than normal because he knew the ferricyanide treatment would lighten it slightly.

He gave the print an overall bath in a ferricyanide solution, watching the whites carefully. He carried on the reduction just enough to lighten the skin tones to the value he wanted, and to get clean whites and pale grays in the dress [Picture 2]. Notice that very little change has taken place in the darker areas–the chair back, for example, and the background. The print has a pleasingly soft quality, as he wanted, but it also has the clean, bright highlights that a straight print on No. 1 paper didn't give him.

In Picture 3, Garfield shows what happens if you overdo ferricyaniding. All the metallic silver in the brightest areas is dissolved. These areas show blank white paper and have an "eaten-away" look [see the detail section]. Don't carry ferricyaniding to this point–the result is unpleasant and unnatural. Like dodging and burning in, *ferricyaniding should never be obvious in the final print.*



Picture 1: Slightly darker than normal print before ferricyanide treatment.



Picture 2: The same print after the correct amount of ferricyaniding.

Picture 3: This is what happens when you overdo ferricyaniding.

Detail, Picture 1

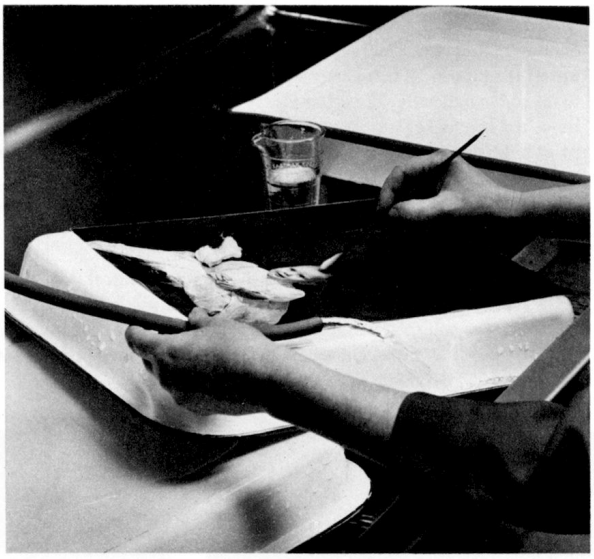
Detail, Picture 2

Detail, Picture 3

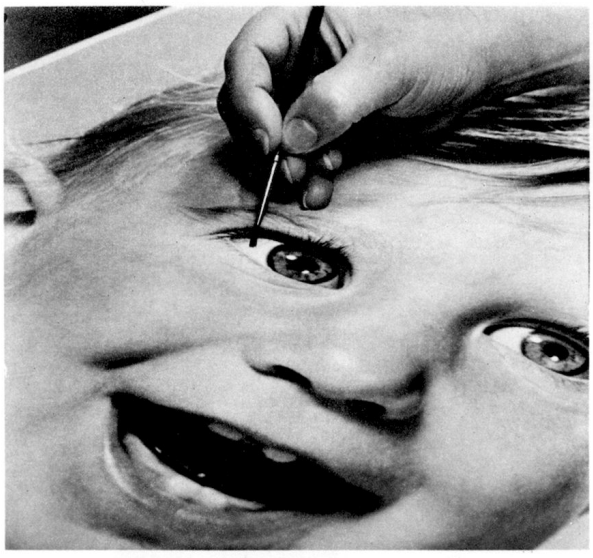
Using ferricyanide on selected areas of a print

If you want to lighten just a certain area or areas on a print, ferricyanide can be applied locally. Mix a Farmer's Reducer solution of about one ounce of hypo and a half-teaspoonful of saturated ferricyanide solution with 16 ounces of water. After the print has been fixed and rinsed free of hypo, apply some of this reducer to the area by any of the methods demonstrated here, then flush off the solution with running water. Reduce the area in stages, a little at a time. This way you control the process better and avoid overdoing things. After completing the treatment, wash the print thoroughly and dry it. [Demonstration photographs by Harry Garfield]

Cotton swab: To lighten a large area, use a cotton swab. Dip it in the reducing solution, squeeze it almost dry, and gently rub it on the area. Use a circular, blending motion so no distinct line forms around the area. Work quickly–the bleaching action usually takes place within a few seconds–and immediately rinse with running water. Here we are lightening highlights in a portrait subject's hair.



Cotton on a stick: For a smaller area–the top of the baby's head here–a Q-tip or a small swab of cotton on a stick is good. After dipping the cotton into the solution, squeeze it virtually dry. Work a little bit at a time, rinsing with running water after each application. [Use a small wad of cotton to wipe the rinsed area dry before you apply more solution.]



Brush: For working on small details, use a brush dipped in your reducing solution. In portraits, for example, you sometimes may want to brighten the whites of the eyes, as is being done here, or to lighten the iris slightly for better detail. A small brush enables you to control the reduction of these details exactly.

Very fine brush: Blemishes and dark spots on a print can be softened or removed by applying the reducer with a very fine brush. You may want to use a stronger than normal solution to eradicate a dark spot or blemish. Try to bleach it out to the exact tone of the surrounding area.

How Irving Penn uses ferricyanide

The use of ferricyanide on a print is not confined to the correction of defects. It also can be of great value in increasing a picture's dramatic effect by emphasizing strong whites and deep blacks. The prints below, from a famous series that Irving Penn did on "the small trades," provide an excellent example of what you can achieve. At the left is an untreated, unspotted print. Compare the darks in this print with those in the treated and spotted print at the right.

You'll see that the dark areas [for example, the left arm, the bucket, and the shadow side of the face] are approximately identical in tone. Now compare the whites. See how much cleaner and brighter they are in the print at the right. The side of the right leg, the highlights in the dropcloth, and other areas have been lightened very slightly by local applications of ferricyanide. The details that Penn wanted to emphasize are subtly strengthened throughout.

Here is the straight print, untreated and unspotted.

The same print, ferricyanided and spotted to Penn's satisfaction, has much more crispness and sparkle.
[Courtesy *Vogue*, ©1951, Condé Nast Publications, Inc.]

These details from the two prints show that the darks remain nearly the same.

But see how much stronger the whites are in the detail at far right, from the treated print.

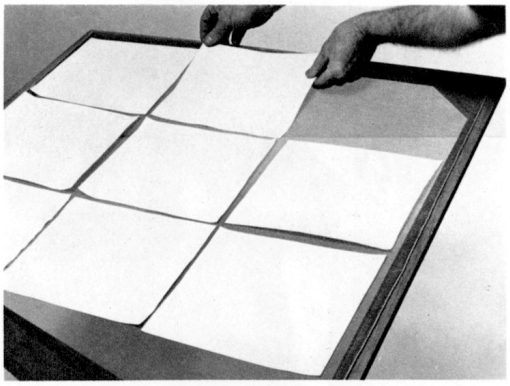
Drying prints

Once you've made a good-quality print for a client your job is only partly done. Your print must be dried, trimmed, and mounted in a professional manner, too. These are routine steps, but on them depends your getting a finished photograph that is neat, attractive, and impressive.

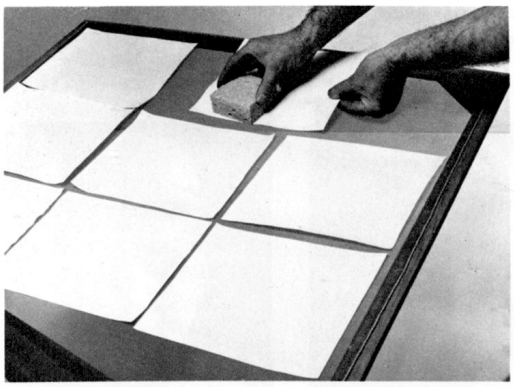
We recommend that you do all your professional printing on double-weight paper. Prints on double-weight paper have less tendency to curl and they can undergo repeated handling with less danger of cracking or becoming dog-eared.

Your prints will dry out fairly flat if you use a blotter roll. However, this usually takes several hours or even overnight. You can speed up the drying process by air-drying them on a screen as demonstrated.

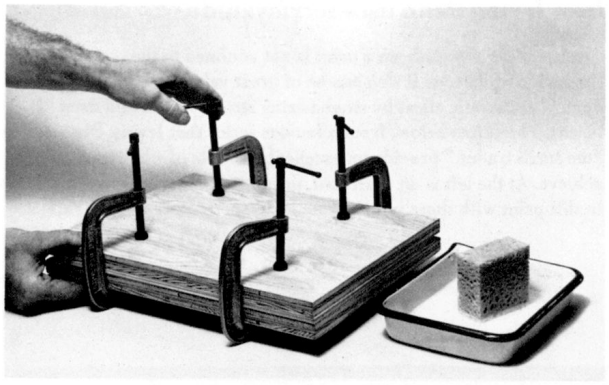
If you have to turn out a volume of work, you'll probably want to invest in an electrically heated print dryer. These are available in a wide range of prices and models. The least expensive handle only a few prints at a time; the large rotary-drum types have a capacity of up to several hundred per hour. Check a photographic-equipment directory or your photo dealer for detailed information.



A good way to dry prints is to place them face down on a piece of plastic screening or cheesecloth attached to a frame. Air can freely reach both the front and back of the prints, and they dry more evenly, with less curl. This air-drying method is considerably quicker than using a blotter roll or placing prints between blotter sheets because the prints are exposed to open air. Make the screen large enough to hold at least several 8x10 prints.



When a print dries, it tends to curl toward the emulsion side. If your dried prints have too much curl, try this cure. Take a slightly moist [not wet] sponge and dampen the back of the print, as shown here. Then place the print face down and leave it to dry. This method usually will remove any excess curl.



Here's another way to flatten prints with too much curl. With a sponge, moisten the back of each print. Place the prints face to face on a sheet of plywood, cover with a second piece of plywood, and clamp this "sandwich" tightly together with four C-clamps as shown. Allow the prints adequate time to dry [it will take longer than if the prints were exposed to air] and unclamp. The plywood should be at least a half-inch bigger at the top, bottom, and sides than the biggest print you expect to flatten.

An electrically heated dry-mounting press provides an even speedier way to flatten a print. Moisten the back of the print, then flatten it in the press under moderate heat until it dries. Don't have the press too hot or leave the print in it too long or you may scorch it.

How to ferrotype a print

Ferrotyping is a method of drying a print on a sheet of highly polished metal called a *ferrotype tin* [or ferrotype plate]. It gives your print a very smooth, shiny surface. This glossy finish sometimes is asked for if the photograph is to be reproduced. Many newspaper and commercial assignments may require you to use ferrotyping. Some photographers use it for aesthetic reasons, too, because they like the sharp, sparkling quality it gives.

Ferrotyping is less popular than it once was, and most magazines no longer require it. Also, the extremely glossy finish usually is not considered pleasing in portraits made for customers—the effect is too sharp and harsh, tending to emphasize blemishes and wrinkles. Nor should you ferrotype a print if it is to be airbrushed or otherwise retouched.

Here are the steps to follow in ferrotyping:

1. Make your print on a *smooth, white, glossy paper.* Do *not* attempt to ferrotype a luster or matte surface.

2. After you've washed the print for the normal amount of time, let it drain, and then place it in a tray of *print-flattening solution.* The solution soaks into the paper and enables it to retain a slight amount of moisture even after it dries. This makes the print flatter and more pliable, lessening the danger that its surface may crack after the ferrotyping is completed. [Print-flattening solution can be used with unferrotyped prints, too, to give them less tendency to curl when dry.]

3. Remove the print from the print-flattening solution, let it drain, and then place it *face down* on the ferrotype tin. Be sure the tin is absolutely clean.

4. Use a rubber roller or squeegee to press the print firmly against the surface of the tin.

5. Turn the tin upside down [the wet print will stick to the tin while you do this] and place it—with the print on the bottom—on any clean surface. Let the print dry with the weight of the tin holding it flat.

6. When the print is completely dry, lift up the tin and gently peel off the print.

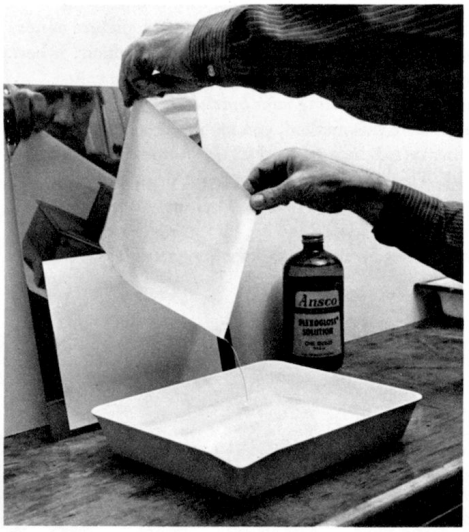
Just as with ordinary drying, you can speed up the ferrotyping

process by using a heat dryer. The metal drum or plate of a dryer can be used for ferrotyping just as you use a ferrotype tin. Simply place your print face down and squeegee it flat. [If you don't want a ferrotype effect, you place the print with its face up.]

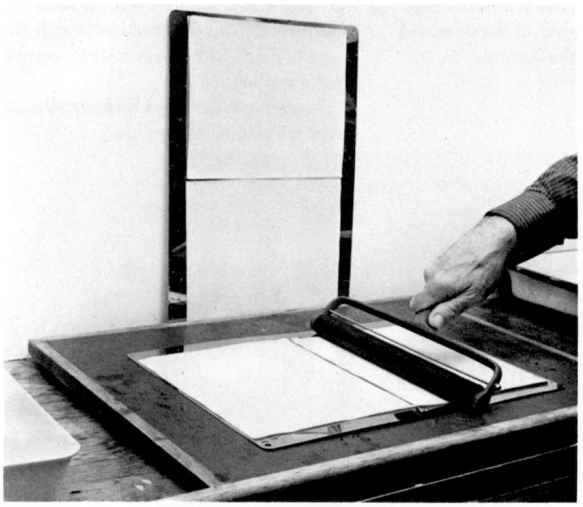
Now and then you may find a print that doesn't drop off or easily peel off the ferrotype tin. Don't try to force the print off or you may tear the emulsion. Apply water with a sponge and soak the print until it comes loose by itself.

Two things may cause a print to stick. First, your fixing bath may be close to exhaustion, so that the print isn't sufficiently hardened. Second, the surface of the tin may be dirty. If your prints tend to stick, refix them in a fresh fixing bath with hardener, and polish the tin with ferrotype cleaner-polisher [you can buy this at most photo stores]. Over a period of time the polished, mirror-like surface of a ferrotype tin may wear to the point where it can't be restored by polishing. When this happens, replace it.

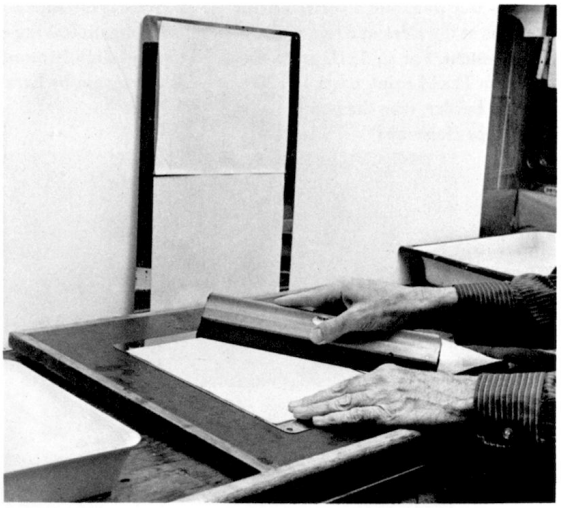
Be sure your ferrotype tin is clean and polished. Always wash it under running water and wipe it dry before you use it. If there is dirt, dust, or grit on the surface, this may cause the print to stick and also make it dirty. From time to time you also should polish the tin, using a clean lint-free rag and a bottle of ferrotype polish. Shine the tin until you get a bright, mirror-like surface.



For best results, immerse your prints in a print-flattening solution. After a print has soaked for a few minutes, quickly lift it from the tray, holding it by the corners as shown. Let the solution drain off, then place the print face down on the tin.



The ferrotype tin should be on a smooth, steady surface. Roll the prints flat, using a rubber roller as we demonstrate here. The roller should be at least eight inches long for best results. A relatively large roller like this is convenient because it enables you to cover the entire print in one stroke. Go back and forth three or four times, exerting firm, smooth pressure, to flatten the print perfectly.



An alternate way of flattening the prints is with a rubber-bladed squeegee like the one shown. Hold the print with one hand and run the squeegee from the center to the edges, exerting firm, even pressure. Repeat a few times until the print is perfectly flat.

Mounting your prints

If a picture is worth making, the print is worth mounting. A neat, attractive mount makes any photograph look more important, and helps protect it, too. Certainly you should mount prints you include in your portfolio of samples. And, unless otherwise instructed or working under the extreme pressure of a tight deadline, also make a habit of mounting any prints you present to a client.

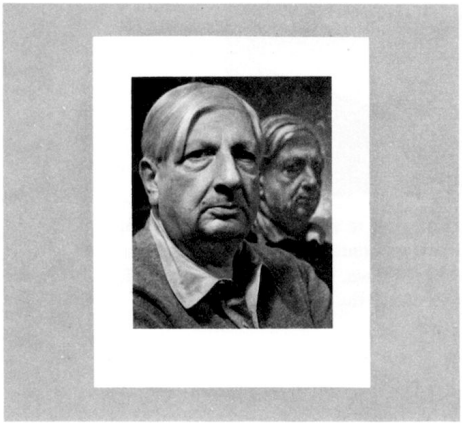
There are many ways, plain and fancy, to mount a print. In the case of portraits it's best to have a good selection of sample mounts and frames on hand, and let the customer make his own choice. With professional work you are delivering to an art director, picture editor, or business client, don't use fancy or ornate mounts. Simplicity is best. The two methods most often used are *flush mounting* [also called borderless mounting] and *mounting with borders.*

Flush mounting: With this method, you mount the print on a cardboard mounting board, *then trim off all the borders,* including the borders of the print. The board adds weight to the print and keeps it flat. This is a very simple but effective method of mounting, most commonly used with large [11x14 and bigger] prints. Later we'll show you some good ways of displaying flush-mounted prints. The print can be attached to the mount with rubber cement or with *dry-mounting tissue*–a thin sheet of translucent material which dissolves under heat and binds the print to the board. Both methods are described here.

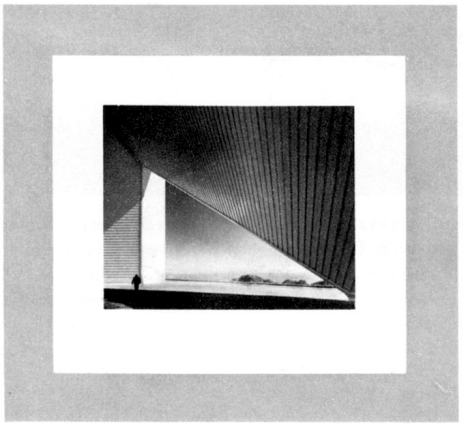
Mounting with borders: With this method–demonstrated on the facing page–you first trim the borders off the print itself, then mount the print on a mounting board that is larger than the print, leaving a margin at the top, bottom, and both sides. There are any number of ways of spacing the print in relation to the mounting board. See the illustrations below for some good ones.

Just as in flush mounting, you can use either rubber cement or dry-mounting tissue to attach the print to the board.

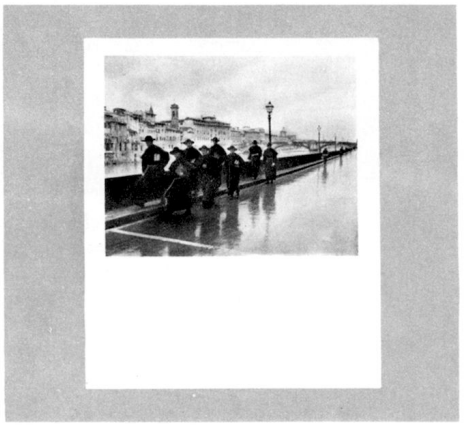
Mounting board: You can buy mounting board in various sizes [8x10, 11x14, 16x20, etc.], weights, and colors at most photo or art supply stores. Depending on the tones of your print, white, off-white, gray, or black might be best. White or off-white are the least conspicuous and probably the best choice for most photographs. However, dark gray or black sometimes can add strength and importance to a picture.



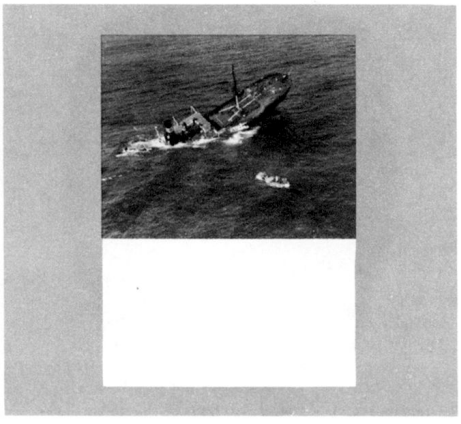
1 This is the standard way to mount a vertical print –leaving equal margins at the sides and top, and a larger margin at the bottom. For an 8x10 print, use an 11x14 board; for an 11x14 print, use a 16x20 board. For a narrower border, trim the board.
[Photograph by Philippe Halsman]



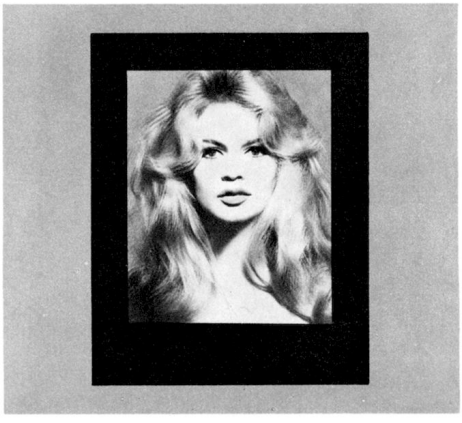
2 Here is the standard way to mount a horizontal print–again leaving equal margins at the sides and top and slightly more space at the bottom.
[Photograph by Ezra Stoller]



3 Sometimes you may want to mount a horizontal print on a *vertical* board. Here's one way to do it–with a very narrow margin at the sides and top.
[Photograph by Alfred Eisenstaedt, courtesy *Life* magazine, ©Time, Inc.]



4 Still another attractive way to place a horizontal print on a vertical board is to mount the print as in 3, then trim off the top and side margins to give this effect.
[Photograph by Joseph Costa, courtesy New York *Daily News*]



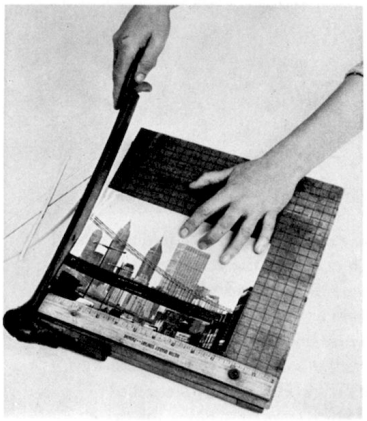
5 A black mounting board tends to concentrate attention and interest on the photograph–especially if it's one with light tones or a white background.
[Photograph by Richard Avedon]

Mounting with rubber cement

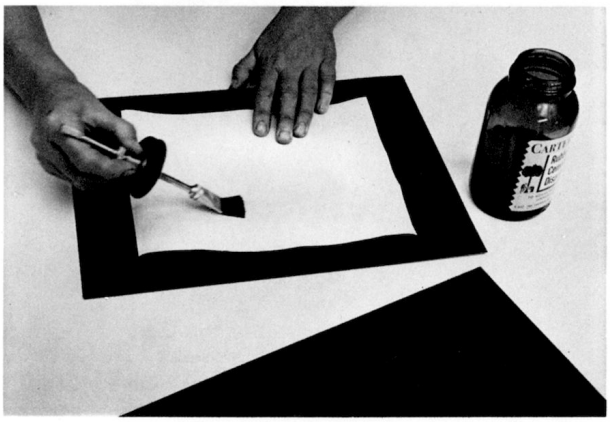
Rubber cement provides an inexpensive, easy means to mount your prints. One big advantage of rubber cement over other adhesives is that if you get some on the margins of the mounting board you simply let the cement dry and you can rub it off without leaving a mark.

You may be accustomed to using rubber cement "wet"–applying it to the underside of the item you want to attach and then putting the item on the mounting surface while the cement is still wet. However, when mounting photographs, we recommend you use the "dry" method we demonstrate. It has several advantages. It enables you to position your print more easily and accurately than does the wet method, it gives a more permanent bond, and it helps eliminate humps or unevenness caused by the cement not sticking properly in some areas.

If you plan to do much mounting, buy a one-pint container of rubber cement, a bottle of rubber-cement *thinner*, and a glass rubber-cement dispenser with a brush attached to its lid. Fill the dispenser about two-thirds full of cement and fill the remaining space with thinner–the exact proportion depends on the consistency you prefer. The cement shouldn't be too thick nor should it be runny. A consistency like that of honey is easiest to handle.

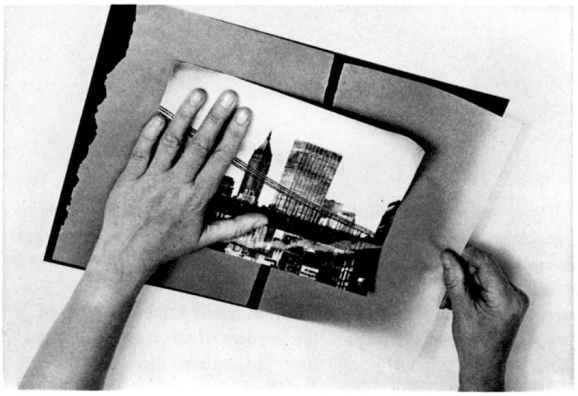


1 Trim the print to the cropping you want. Don't leave any of the white border. A paper cutter like the one shown offers you the quickest way to get straight edges and square corners. However, you can use a metal ruler and single-edged razor blade or a sharp-bladed X-acto knife.

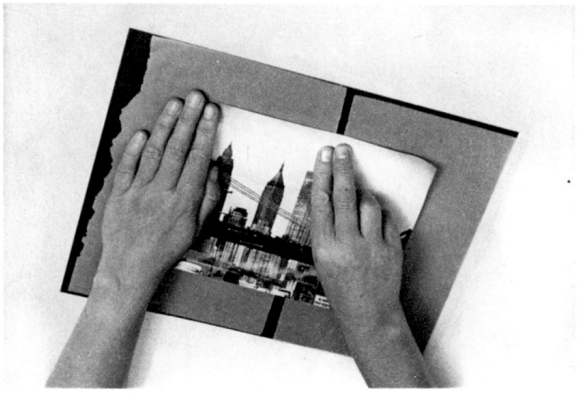


2 Place the print face down on your mounting board and position it. Mark *lightly* with pencil where the corners of the print come. Brush cement *evenly* over the back of the print and *slightly beyond the edges*. Thus, when you lift it, the cement border will show the area to be filled with cement. Remove the print and set it aside to dry. Brush cement over the matching area on the board and let that dry.

3 After the cement is thoroughly dry, take two sheets of thin, translucent tracing paper and place them on the board so they overlap about an inch in the center. [If the cement is dry, the paper won't stick.] Then place the print on top of the paper. Move the print around until you get it in the right position [something you can't do with the "wet" method]. Use the corner pencil marks as a guide–you should be able to see them through the tracing paper.



4 Holding the print firmly in place with one hand, gently slip one of the tracing-paper sheets out just enough to leave a little gap between the two sheets.



5 With the tips of your fingers, smooth the print so it comes into contact with the board in the space between the sheets, as shown. Where the two dry cemented surfaces are pressed together they will instantly adhere. Remove one sheet, gently smoothing and pressing the print down as you do so. *Work from the center toward the edge.* Then remove the other sheet, again gently pressing the print as before, until it is firmly and smoothly attached. Rub off any excess rubber cement around the edges of the print. Your photograph is now mounted.

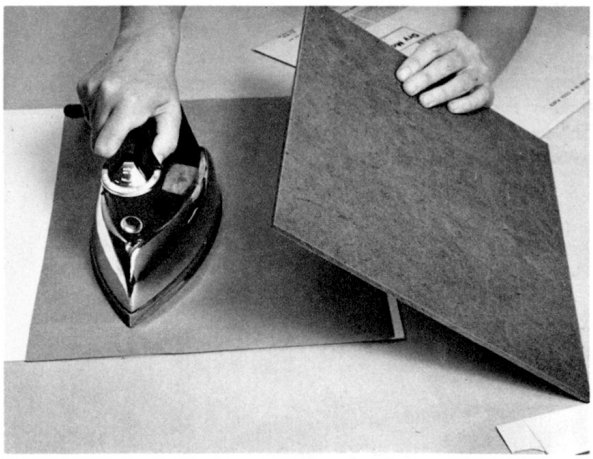
How to use dry-mounting tissue

Dry-mounting tissue–a thin, translucent sheet with an adhesive that dissolves under heat–is available in various sizes at most photo and art supply stores. It provides you with a fast, clean way to mount your prints. When correctly applied, it gives a very smooth, permanent bond between the print and the mounting board.

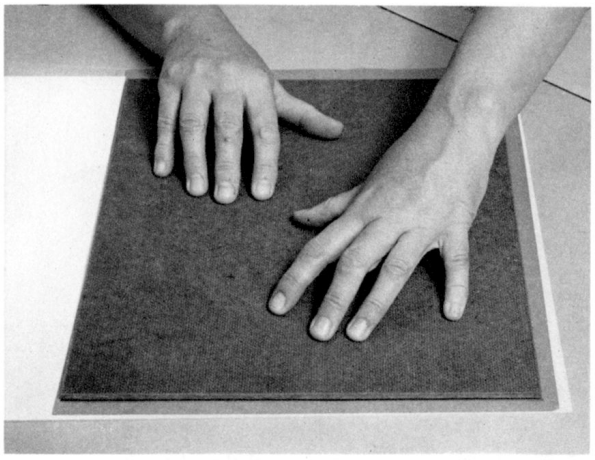
Pressure and the proper amount of heat are required to do a good job. An electrically heated press [called a dry-mounting press] often is used in professional studios and art departments for mounting prints. However, you can do a good job with an electric iron.

First, heat the iron. Generally, setting the thermostat between "silk" and "wool" should be about right. However, it's a good idea to make a test with a small piece of mounting tissue and a scrap piece of print. The iron must be hot enough to melt the adhesive, but not so hot it scorches the print. After the iron is properly heated, follow these steps.

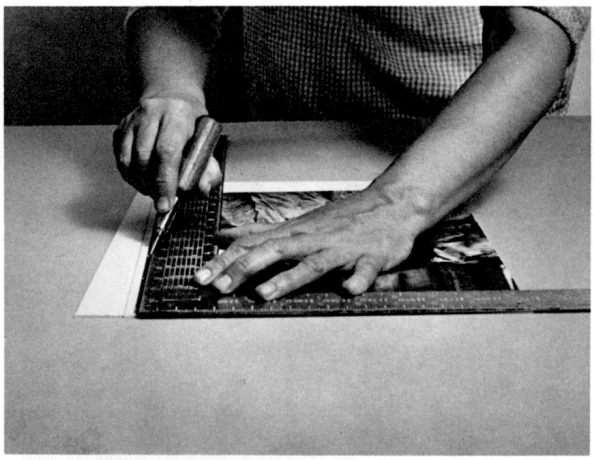
1 Turn your print face down and place a sheet of dry-mounting tissue over the back. [First remove the tinted protective paper that covers the tissue.] Use a sheet the same size as the photograph or a little larger. Now "tack" the tissue to the back of the print by pressing with the hot iron in the center, leaving the corners free. If you plan to mount the print so the borders of the mounting board show, trim the print. If you plant to flush-mount it, you do the trimming later.



2 Place the print face up on the mounting board and position it exactly. One by one, lift each corner of the print and tack the corner of the underlying tissue to the board with the tip of your iron. Then cover the print with a sheet of paper [wrapping paper is good]. *Working from the center out*, press the iron firmly and quickly over the print. The entire surface of the print must be heated, or the adhesive won't stick. Have ready a sheet of quarter-inch-thick masonite large enough to cover the print.



3 Put aside the iron and place the masonite over the print, completely covering it. Press down with your hands and outstretched fingers as shown. Maintain this pressure for 15 or 20 seconds, giving the mounting tissue time to cool. This will help you do a smoother job, with less danger of bubbles, than if you let the mounting tissue cool without applying pressure.

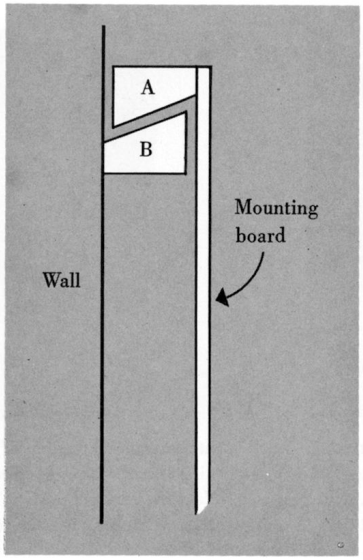


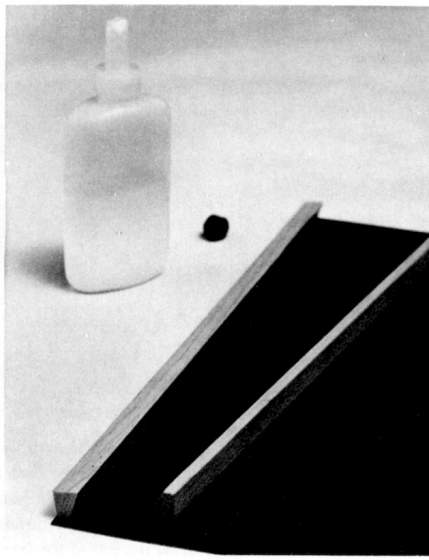
4 If you are flush-mounting the print, trim it now. You can use a single-edged razor blade, but a sharp knife is better because it has a handle. To guide your cut, use a steel ruler or carpenter's square. Hold the knife at a slight angle, as shown, to get a beveled cut. Slice through the board in one firm stroke–and be careful the blade doesn't slip. Practice on a scrap piece until you get the knack. With a thick board, you may have to make two or three strokes, cutting deeper each time with your blade in the same groove.

How to hang mounted prints

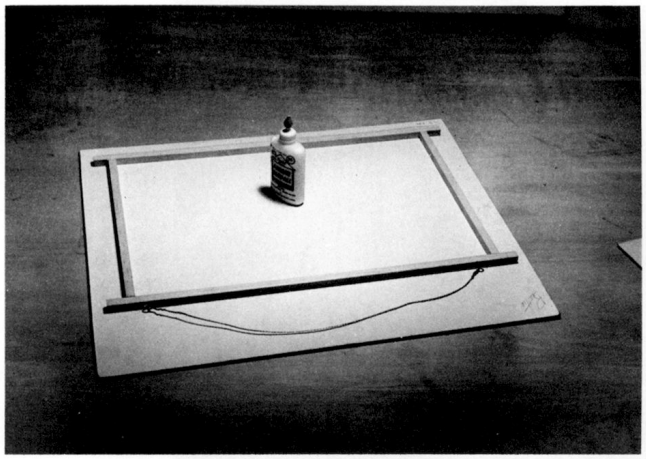
Good photographs deserve good display. You'll probably want to hang your best pictures on the walls of your home. If you're a professional, samples of your work attractively displayed in a window or studio reception room can be persuasive salesmen. Here are some good methods for hanging mounted photographs, singly or in groups.

When you display a group of prints on mounts of different sizes, they look neater if you line them up at the top. Here's a convenient way to get this effect. Take a strip of wood [1x1 is a good size] and cut it lengthwise to get two strips [labeled A and B in the cross-section diagram]. The cut should be made at an angle, as indicated. Nail strip B to the wall, at the height where you want the top of your prints to come. This strip can be as long as you want it.

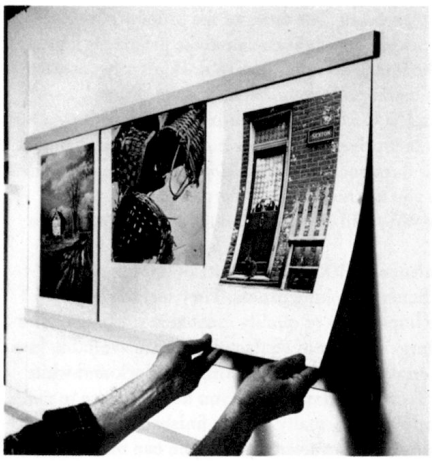


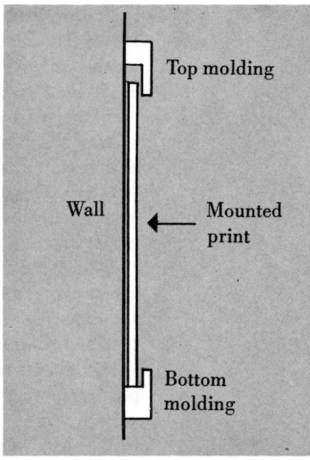


Now take strip A and cut off a section that fits across the top of the print to be hung. Glue the strip to the back of the mount. [Be sure the strip is lined up evenly with the top edge of the mount, as shown at right.] Now hang your print by fitting strip A over strip B. You can hang as many prints as you can fit on strip B. To keep prints from hanging in at the bottom, glue small blocks of wood to the lower corners—making sure the blocks are the same thickness as your top strips.



A large print like the 20x24-inch one shown here may tend to curl slightly after it has been hanging [unless you mount it on very heavy cardboard or on plywood]. You can help keep the print flat and provide yourself with a convenient way to hang it at the same time. Cut four strips of 1/2 x 1/2 pine and glue them to the back of the mount, giving it added rigidity. Then you can attach small screweyes and picture wire to the top strip, and hang the print from a picture hook on the wall. The strips of wood won't be visible but will hold the print slightly out from the wall.

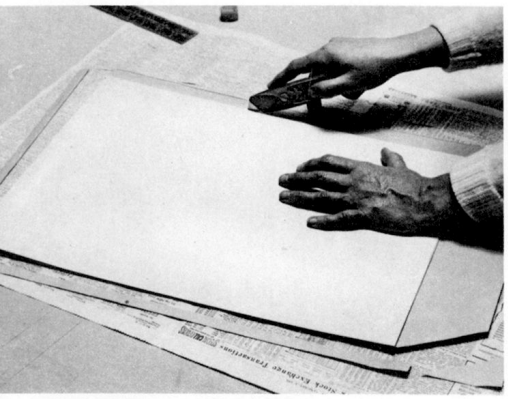




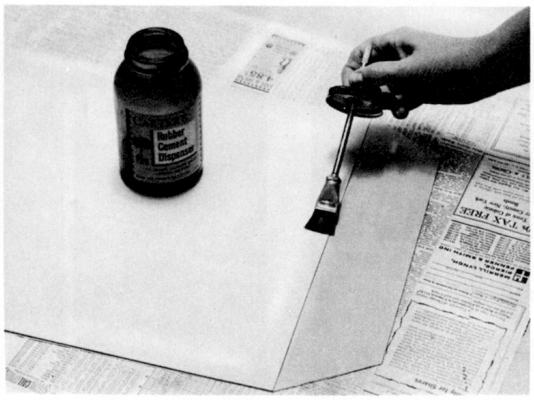
A convenient way to hang mounted prints all of the same height is to use two horizontal slotted wall moldings placed the proper distance apart. As you can see in the cross-section detail, the slot in the top molding should be twice as deep as the slot in the bottom one. Thus you can slip a print into the top slot and then let it drop into the bottom one, where it will be held securely.

How to flap a print

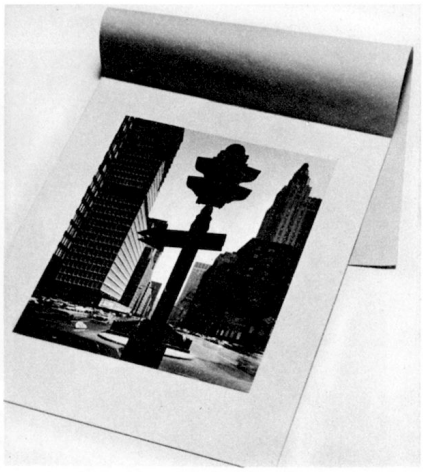
Before presenting a photograph to a client, it's often wise to *flap* it–cover it with a sheet of protective paper. This not only protects the surface of the print, but also gives the picture added dignity. Use a heavy kraft or bond paper for the flap. Here's how to do it.



1 Place your mounted print face down on a sheet of flap paper slightly larger than the mount. With a sharp knife or razor blade, trim the paper to the exact size of the mount at the sides and bottom. At the top of the board, leave two or three inches of paper and trim the two upper corners at an angle.



2 Coat the exposed portion of flap paper and the top of the mounting board with rubber cement. Let the cement dry. Then fold the exposed portion neatly back and smooth it down, thus attaching the flap to the board.



3 Here's the final result, with the flap folded back to display the print. If you carry a number of prints in a case or portfolio, flapping will help keep them clean and unscuffed. Considering the work that goes into making a good print, flapping is well worth the little extra time it takes.

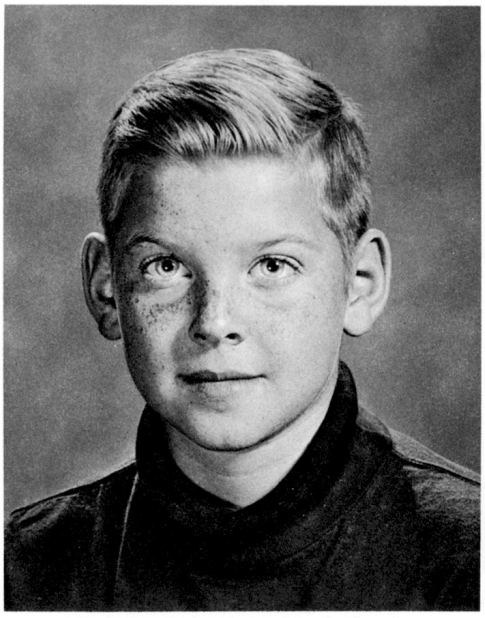
Making customers' proof prints

Portrait proofs sometimes are made on what is called *printing-out paper* [or P.O.P., for short]. You're probably familiar with P.O.P. if you've ever had a portrait taken. The tones of the proof are reddish brown. The paper is inexpensive and you can make proofs on it very quickly and easily. The image eventually turns dark after exposure to bright light, so the customer must come back for final prints.

To make a proof on P.O.P., you simply sandwich the negative and a sheet of P.O.P. in a contact-printing frame or box and expose to bright light until the image is dark enough. *No developing or fixing is needed* –the light alone gives you an image. Put the proofs in a protective envelope immediately–they will darken if you leave them exposed to bright light.

Despite the convenience of P.O.P., many portrait photographers prefer to make more finished-looking proofs. They feel the better showmanship and the impression of quality created is worth the extra time and expense. A large number of contact papers are available [see the list in the section on developing and printing for black-and-white photography in your Technical Manual], or you might choose to make your proofs on the paper you normally use for finished enlargements.

If you shoot portraits on color-negative film, you can make your proofs in black and white so the customer can choose the expressions he likes, even though you make a finished print in color. A special panchromatic paper [Panalure] is available for making black-and-white prints from color negatives that have an orange-colored cast. However, for proofing purposes, some photographers find that ordinary enlarging paper gives adequate results. [With color-negative film that does *not* have an orange cast, any paper can be used.]

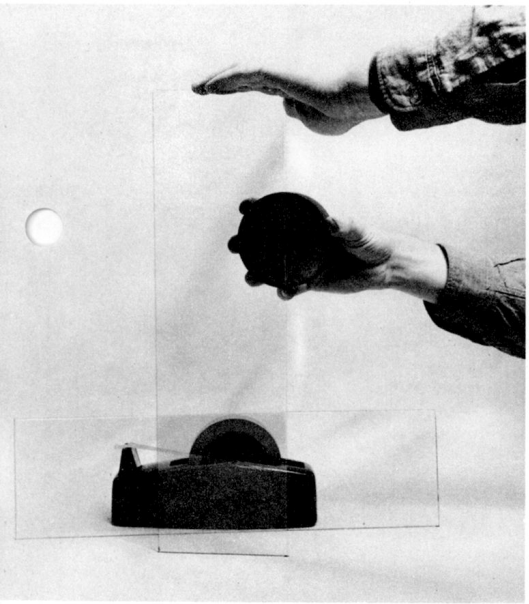


Reproduced here is a black-and-white proof made by Harry Garfield on ordinary enlarging paper from a color-negative film with an orange cast. Because the overall orange cast tends to lower the negative's contrast, you may need a contrasty paper to get a good, crisp result.

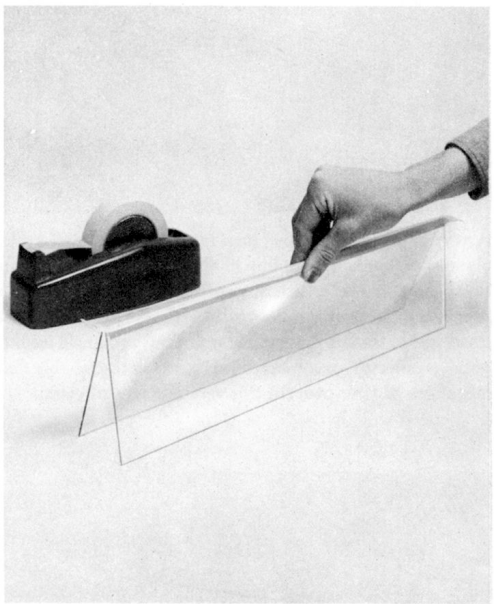
How to make enlarged 35-mm and roll-film proof prints

For your own purposes, an ordinary contact 35-mm or roll-film proof sheet usually is satisfactory. However, if you deliver proofs to a client you may want *enlarged proofs*. These are smaller than full-size enlargements and much simpler to make. At the same time they show the pictures off to better advantage and are much easier to "read" than contact proofs.

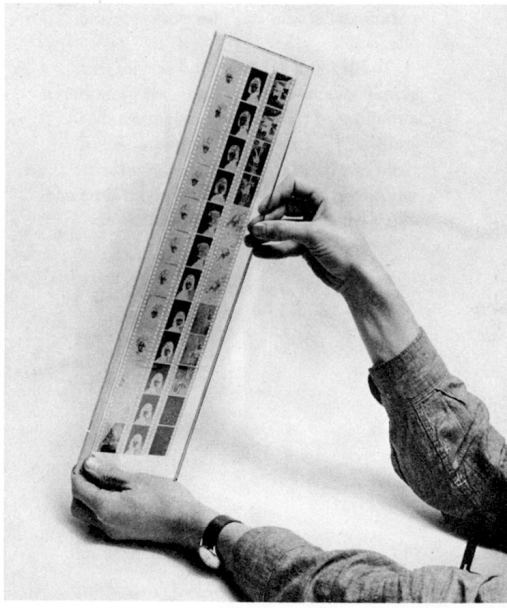
The method we demonstrate here requires a 4x5 enlarger and a glass negative holder you can make for yourself. You put strips of negatives in the holder and then place the holder in the enlarger. This enables you to enlarge several frames at a time. The resulting proof looks much like an ordinary contact proof sheet, but each frame will be enlarged. You can control the size of the frames by raising and lowering the enlarger head. On an 8x10 sheet of paper you can get the following: four 2 1/4 x 2 1/4 frames enlarged to almost 4x4, nine 35-mm frames enlarged to about 1 3/4 x 2 1/2, or four 35-mm frames enlarged to roughly 3x4 inches.



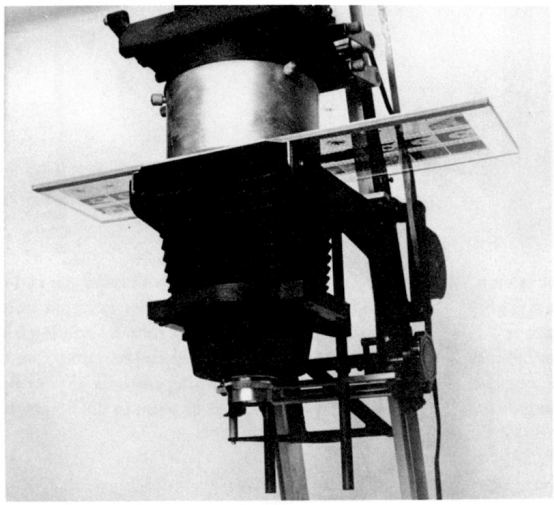
1 To make the negative holder you need two pieces of heavy glass about 5x18 inches each. Use a sharpening stone as shown to round off the sharp edges and corners.



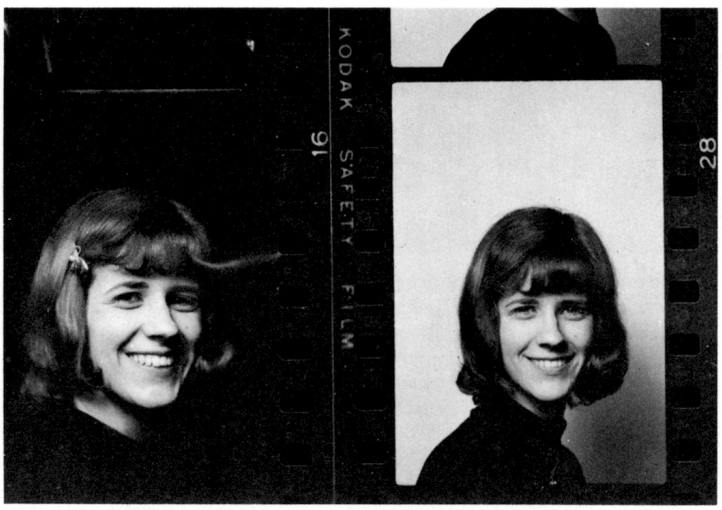
2 Hinge the two pieces of glass together lengthwise with masking tape.



3 Place strips of negatives between the two sheets of glass. This holder accommodates a 36-exposure roll of 35-mm film cut into three strips or a full roll of 120 film in two strips.



4 Put the holder in the enlarger. With a 36-exposure roll, first enlarge the nine frames at one end. Then slide the holder along until the next group of nine frames are in position, enlarge them, and repeat until you've proofed all the frames. [This requires a total of four 8x10 sheets of paper and four separate exposures.]

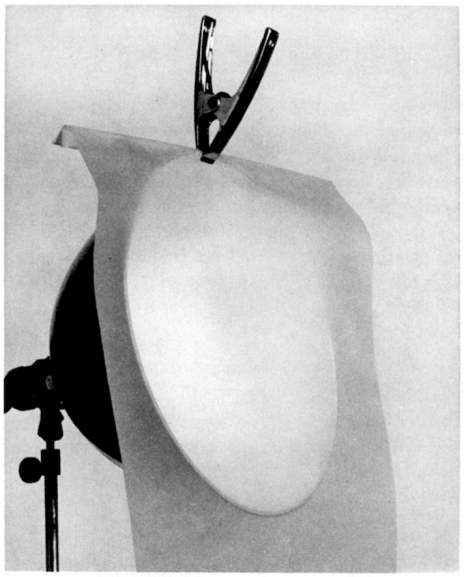


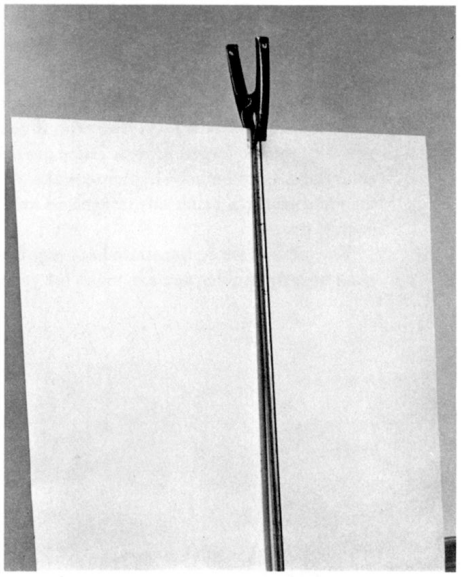
Here's a portion of the resulting proof sheet, reproduced actual size. Notice how much more clearly you can see the subject's expression and other details than you can in an ordinary 35-mm contact proof.

Studio tips and methods

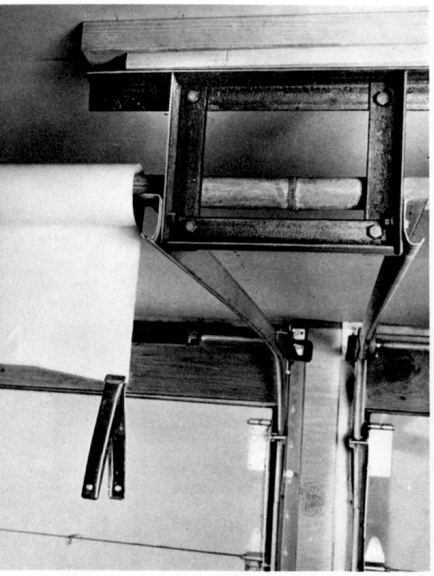
The word "studio" has an impressive sound, and may bring to mind a huge and lavishly equipped room. But, as you have seen demonstrated many times in this Course, good studio pictures can be taken in relatively limited space and with modest equipment. Even a portion of a living room or playroom, a garage, or a basement can serve your purpose well. And there's no reason why a temporary setup or a small permanent studio can't be workable and efficient.

To help you achieve good results with simple means, on these pages we've gathered a number of tips and methods from the studios of your Faculty members. All of them can be adapted even to the most modest setup—and all can save you time and effort when shooting a studio picture.

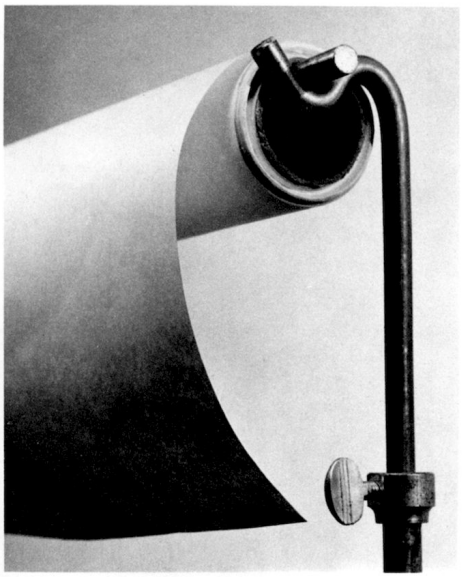




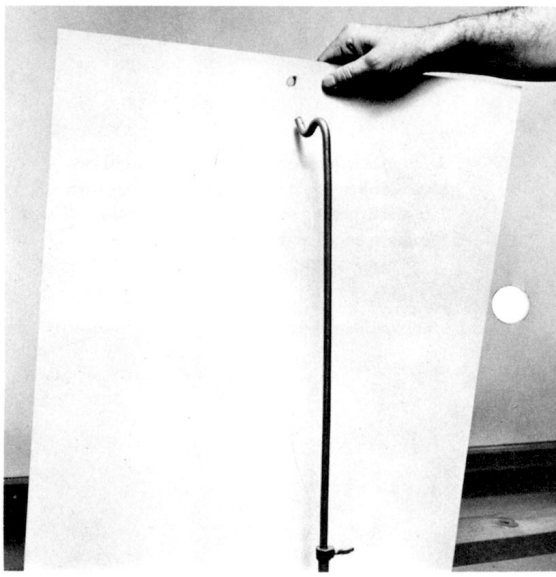
A very handy, inexpensive item for any studio is an ordinary spring clamp—the kind you can buy in almost any hardware store. Here are two good uses for it. At left, a spring clamp holds a sheet of diffusion material in front of a reflector. At right, a spring clamp holds a sheet of white cardboard to a light-stand. The cardboard might be used as a gobo, a reflector, or a bounce surface. You'll probably discover many more uses of your own for this versatile type of clamp.



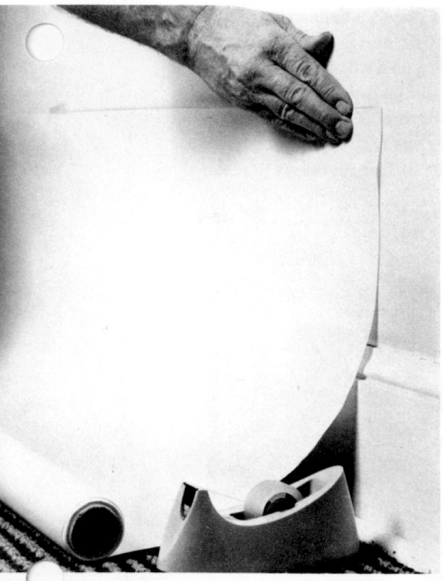
The overhead door supports in a garage provide a handy means for hanging a roll of seamless background paper. Just run a pole through the hollow tube on which the paper is wound, and rest the ends of the pole on the supports. When you want to shoot, you can roll down a section of the paper. When you've finished, you can roll it back up out of the way. [The spring clamp shown here is to weight the paper and keep it tight on the roll.]



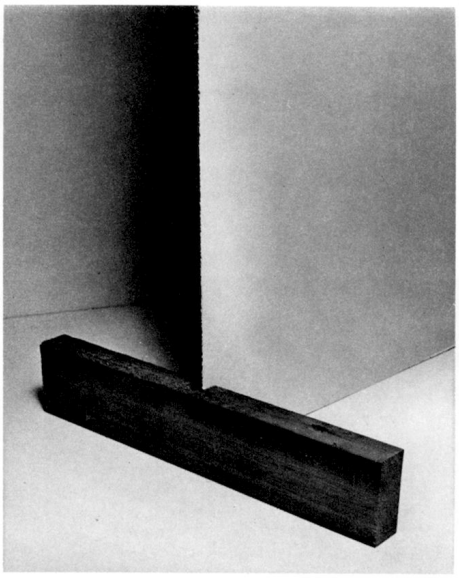
Another good way to support a roll of paper is on a pole between two light-stands. To make this rig, get some 3/8-inch aluminum rod. This aluminum is lightweight, easy to cut and bend, and is available at most hardware stores. Cut one piece long enough to act as the crosspole. Then cut two shorter lengths and bend one end of each in an S-shaped hook. Insert the straight end of each piece into the top socket of a telescoping light-stand and lock it in position. [The 3/8-inch aluminum rod is the same diameter as the topmost and smallest shaft of most telescoping light-stands.]



A light-stand topped with an aluminum rod bent into a hook has other uses, too. For example, you can get a serviceable reflector or gobo by making a hole in a sheet of white cardboard and hanging it on the hook. Adjusting the telescoping sections of your light-stand brings your reflector or gobo to the height you want.

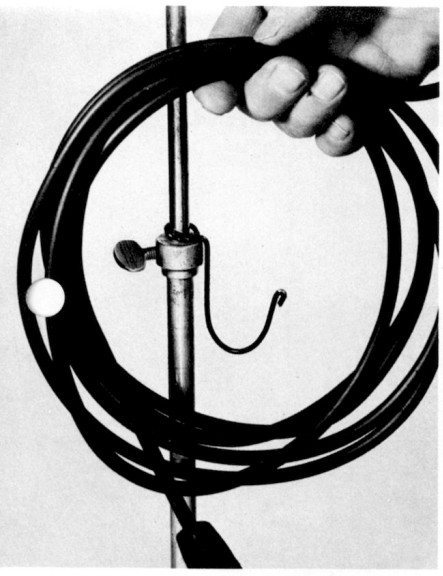


If you have a white wall, you may not need ceiling-to-floor white paper for a horizonless sweep. Tape the top of your paper above the baseboard and extend the paper forward across the floor. To make the seam invisible where wall and paper meet, throw it out of focus.



Here's a quick, easy way to hold a large sheet of stiff material vertical to make a studio flat. Cut two 18-inch pieces from an ordinary 2x4. In the center of each, cut a slot just *slightly* wider than the thickness of the sheet. Attach each piece of wood as shown.

For attaching a light to a small support, an alligator type of clamp is useful. One of these clamps is shown here, holding a floodlight to a tripod leg for low-angle lighting. This type of clamp has toothed jaws that grip even a small, smooth object like a tripod leg without slipping.



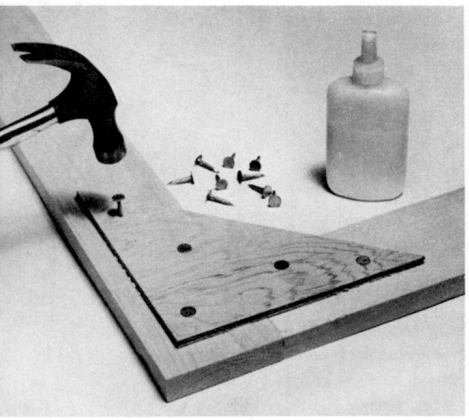
Coil electric light cords and hang them out of the way when you're not using them. This procedure can do much to keep your studio neat and safe. [Tripping over a clutter of loose cords can be annoying if not dangerous.]

To make a hook for this purpose, bend a piece of coat-hanger wire into the shape shown–with a loop at one end that fits onto a light-stand, and a hook at the other to hold the wire. The bent-down end of the hook prevents things from snagging on it.

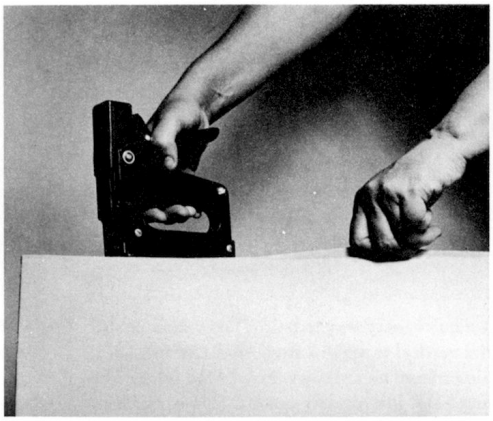
Pole lights can be useful, especially in studios with low ceilings and limited space. You can buy a pole light designed for photographic purposes or you can make one yourself from an inexpensive pole light for home use. A typical living room pole light with three lamps is shown here. The short, narrow top section telescopes into the main pole. A spring presses the top section against the ceiling, holding the pole in place. To change its position, you just press down on the spring, relieving the tension against the ceiling, and reposition the pole. At right is the same pole being adapted for the home studio. The lamp reflectors and sockets have been removed and are being replaced with standard screw-in sockets for use with reflector photoflood bulbs. The sockets are attached to the universal joints that come on the original pole, and the bulbs can be pointed in any direction.

How to make a flat for your studio

Flats have a great number of uses. For example, a flat can serve as a background, as a surface for bouncelighting, and to mask out excessive backlighting to prevent flare. If you do much professional studio work you'll want at least one flat and probably more. It's simple to make a flat to the exact size that fits your needs. If you don't have the necessary tools and skills, a carpenter can easily build one for you. [For a plan and a list of materials, see the section on things to make in your Technical Manual.]

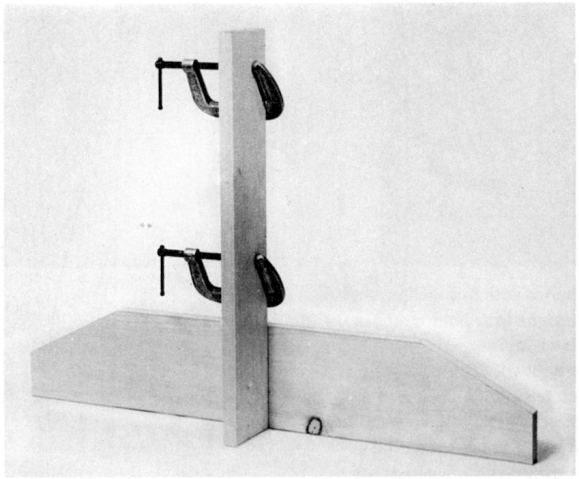


1 Construct a frame to the size you want. For sizes up to about 8x8, use 1x4 pine. For larger sizes, 1x6 stock will give you stronger construction. Add a vertical crossbrace about every three feet, fitting it between the horizontals–this will make the frame more rigid and help keep the cloth covering tight. Cut triangles from 1/4-inch plywood to reinforce all the joints. Fasten a triangle to each corner of the frame with glue and 3/4-inch galvanized roofing nails as we are doing here. This is an easy way to get good, strong joints. Also add a triangle wherever a crossbrace joins the frame.

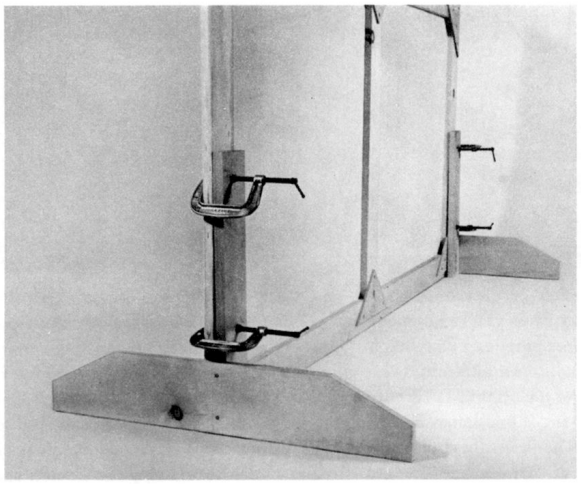


2 Cover the frame with cloth. Inexpensive unbleached muslin or lightweight canvas is good. Stretch it so it fits snugly, without wrinkles, but don't make it too tight. Fasten the edges to the frame with a staple gun, spacing the staples not more than four inches apart.

3 Next, paint the cloth. First apply an overall coat of wall size to the front surface of the cloth, then follow it with two or three coats of latex-base wall paint. White or light gray is probably the shade you'll find most useful. The exact number of coats is determined by the thickness of the paint and the coarseness of the material. Don't use oil-base paint on a flat–it tends to turn brittle and develop unsightly cracks.



4 Make two standards to hold the flat upright. Here's a good, simple method. Cut and nail together two pieces of pine as shown, and add a couple of C-clamps. The clamps hold the edge of the frame to the standard. [You need another standard and two more clamps for the other end of the flat.]

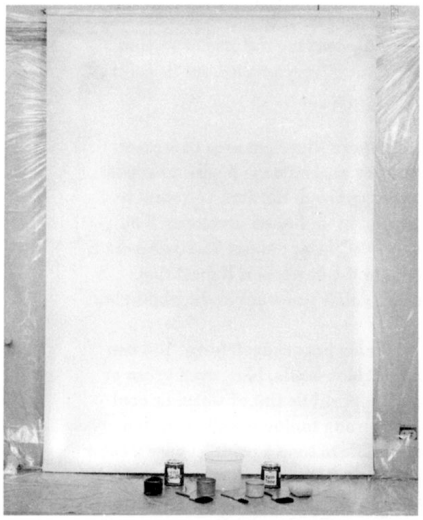


5 Here's the finished flat, seen from the back. It's lightweight, and you can easily take it off the standards for storage when you're not working with it. This is a low flat, intended for use with small still-life subjects and as a bounce surface. You can make flats any height, to serve as backgrounds for larger subjects.

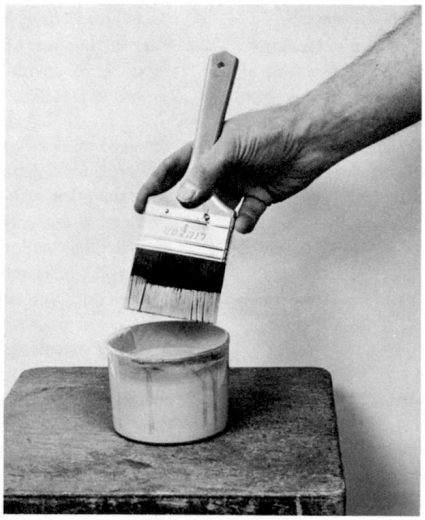
How to make a painted background for portraits

On this page Harry Garfield demonstrates a good method for making a background for portraits. This type of background has a number of advantages–it can be used with color or black and white, it produces a subdued but attractively patterned effect, and it can be made lighter or darker by controlling the amount of light on it. A similar background was used in the portrait on page 27 of Lesson 11.

Garfield uses a large roll-up window shade for his background. When not in use, the shade can be rolled up and stored in a small space. If you do much portrait work you might, like Garfield, prepare a number of backgrounds–say one in neutral gray, one in cool hues, and one in warm hues–to suit the clothing and facial coloration of different subjects.



1 A window shade about six feet wide and eight feet high makes a good background. You'll also need a small can of black latex-base paint, a small can of white, three inexpensive brushes in different widths, a sponge, and containers for mixing and blending the paint and cleaning the brushes. Notice that a plastic dropcloth is placed behind the shade to protect the wall–a wise precaution.

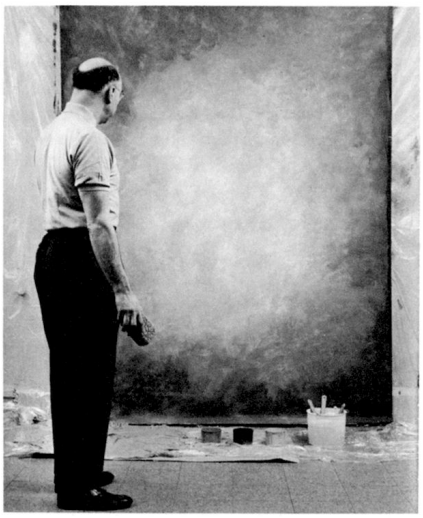


2 Mix a light gray in one container, a dark gray in another, a medium gray in a third. [For a colored background, add enough colored paint to the grays to get the strength of hue you want. Garfield often uses subdued greens and blues for a cool backdrop, soft browns and maroons for a warm one.] Don't dip your brush into the paint too deeply. Apply a little at a time, blending it with the paint in surrounding areas.

3 First brush the lightest gray in a rectangular area approximately 12x15 inches in the center of the background. This area should fall behind your subject's head. If you plan to use the backdrop with children or seated adults, place the light area lower than if you plan to use it with standing adults. Brush the paint on smoothly, and don't leave a distinct edge around the painted area.

4 Dip your brush in the medium gray, picking up a little paint. Brush it over the light gray, working for a mottled effect, as shown. Take more middle gray and paint around your finished central area. Blend this in. Work from the center. As you get to the edges, brush in dark paint, too.

5 If you get too sharp a demarcation betweeen a light and dark area, use the sponge to blend and soften the edge between them. Then brush over this area again to give it the texture of brush strokes. Keep the strokes short, and vary their direction.



6 Here's the completed background–light in the center, against which the subject's head will appear, and growing progressively darker toward the sides, top, and bottom. In no area should there be smooth, even tone. All areas should have interesting texture and mottling.

Setting professional standards

Every step in the photographic process is important–and every step is linked to what came before and what happens next. Your responsibility as a photographer doesn't end until you deliver a finished print to the client–or make one that satisfies you as the best you can do.

If you want to succeed in photography, set high standards of craftsmanship for yourself at every stage–from arranging your lighting and calculating exposure to spotting, mounting, and flapping the print. Don't be careless or slipshod at any stage. A good photograph deserves the best care you can give it.

In an age of increasing mass production, photography remains a personal, individual craft. You put the stamp of your own personality on every picture you take–in your choice of subject matter, in your ways of seeing and composing, and in the care and attention you spend on details. Strive to make your photographs represent the best that's in you. If you do that, you are well on your way to becoming a professional in the deepest sense of the word, whether or not your immediate goal is selling the picture.

More darkroom and studio tips

- Sometimes a negative may seem to require a contrast grade that's just about halfway between two grades of paper or two variable-contrast filters. In this case, make the print on the higher-contrast paper [or with the higher-contrast filter] and soften the print slightly by any of the methods listed on page 6. This usually works better than printing soft and trying to increase contrast.

- Another way to control print contrast precisely is to use what is called a "two-bath" developing system. You use two trays of developer–one developer that is soft-working and one that produces more contrast. You start to develop your print in the soft-working developer. If you want more contrast, you then transfer it to the second, higher-contrast developer. By varying the proportion of time spent in each, you can vary the contrast. Selectol-Soft and Selectol are sometimes used for this purpose, or Dektol diluted 1:4 for the soft-working developer and diluted 1:1 for the more contrasty one.

- Variable-contrast filters sometimes can help you make a good print from a difficult negative–especially one that combines weak, flat shadow areas with blocked-up highlight areas. [Available-light negatives sometimes have this quality.] Make an overall exposure through a high-contrast filter to separate the tones and bring out detail in the flat shadow areas. *Then burn in the highlights through a low-contrast filter.* You'll need to make test prints to determine the best combination of variable filters and exposure times.

- Philippe Halsman has another way of using variable-contrast filters. He tries to produce negatives that print well on variable-contrast paper without a filter because he believes that adding a filter may slightly impair the sharpness of the image. If, after making a test print, he feels there is a need for increasing contrast, he makes another print using a high-contrast filter during *only a portion of the exposure time.* If he wants a softer print, he uses a low-contrast filter during part of the exposure. By varying the proportions of exposure time with and without a filter, very precise, subtle contrast control is possible.

- To speed up development in a stubborn highlight area of a print, remove the print from the developer as the image begins to appear, rinse the print with running water, and rub the area you want to bring up with a cotton swab dipped in undiluted developer. For even stronger action, apply *warm* developer; about 75-80 degrees F. is good. Quickly return the print to the developer. Repeat this process until you get the tone and detail you want in the highlight.

- A variety of *print toners* are available in packaged form. You can use these to give prints an overall color–sepia, blue, even green or red. Don't overdo toning, however. A subtle tint of warm or cool color may enhance a picture, but strong toning usually calls too much attention to itself. If you decide to tone a print, choose a color that's appropriate to the subject–a cool blue for a snow scene, for example, or a warm sepia for an autumn landscape. Different types of toners require different procedures. Read and follow the manufacturer's directions on the package.

- If you wish to frame a print under glass but want to avoid surface reflections, you can obtain a special nonglare glass at most picture-framing stores. It is somewhat more expensive than regular glass, but it is practically free from reflections.

- If you want a permanent background or sweep that gives the effect of white seamless paper but is far more durable, use ordinary linoleum. It is available in rolls of various widths in plain white, shades of gray, or colors. Buy a length that's wide enough and long enough and permanently attach it to your studio wall.

- If you want a powerful continuous source of light for location shooting where electricity isn't available, a good solution is a portable battery-powered quartz-iodine light. Although primarily designed for motion-picture photography, these lighting units can be used for still photography, too.

Technical notes on the photographs

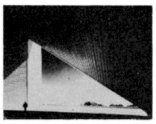
Page 2
Joseph Costa; Hasselblad with an 80-mm lens; Plus-X film; exposure for electronic flash at *f*/16; two electronic flash units bounced off background.

Page 12
Harry Garfield; 4x5 Gowlandflex with an 8¼-inch *f*/4.5 lens; Panatomic-X film; exposure for electronic flash at *f*/22; four electronic flash units.

Page 15
Harry Garfield; 4x5 Gowlandflex with an 8¼-inch lens; Panatomic-X film; exposure for electronic flash at *f*/16; two electronic flash units.

Page 17
Irving Penn; Rolleiflex with a 75-mm *f*/3.5 lens; Super-XX film; 1/2 second at *f*/11; studio daylight.

Page 20
Philippe Halsman; Fairchild-Halsman with a 210-mm *f*/4.5 lens; Super Panchro-Press, Type B film; 1/5 second at *f*/16; floodlights.



Page 20
Ezra Stoller; 4x5 Sinar with a 4⅜-inch lens; Tri-X film; 1/50 second at *f*/16; daylight.

Page 20
Alfred Eisenstaedt; Leica with a 50-mm lens; Plus-X film; 1/125 second at *f*/8; daylight.

Page 20
Joseph Costa; 5x7 Fairchild Aerial with a 10¼-inch lens; Super Panchro-Press, Type B film; 1/300 second at *f*/11; daylight.

Page 20
Richard Avedon; Rolleiflex with an 80-mm *f*/2.8 lens; Tri-X film; 1/60 second at *f*/8; one 1,500-watt diffused floodlight.

Page 24
Harry Garfield; 4x5 Gowlandflex with an 8¼-inch *f*/4.5 lens and a roll-film back; Ektacolor Professional, Type S film; exposure for electronic flash at *f*/32; four electronic flash units.

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Famous Photographers School, Inc., Westport, Connecticut

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Lesson

23

Basic moviemaking

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4 Motion-picture cameras and how they work
10 How to plan a movie
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14 Finding good camera angles
16 Panning the camera
20 Dolly and zoom shots
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26 Lighting
28 How to edit your film
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In motion-picture photography the *illusion of movement* is created by individual frames of film flashing on and off the screen in rapid sequence. Thus you can show the subject itself in motion, as in the film at left, or add motion to a static subject by moving the camera itself, as in the pictures of the Chrysler Building.
[Photographs at right by Arthur d'Arazien]

Pictures in motion

Motion pictures have a unique fascination for almost all of us. In no other form of art or communication is reality so vividly presented as in moving photographs projected on a screen. Instead of recording isolated moments on film, a movie camera can capture an event as it actually happens in time. The image seems to come alive–so much so that watching a movie can sometimes give us a more intense, absorbing experience than watching the event itself.

We usually think of movies first as a form of entertainment. But they can also express an idea, record a moment in history, show the intricate workings of machinery, sell a product, or teach. Consider the various filmed programs and sales messages that flash across your television screen in a day and you will appreciate the boundless range of material for the motion-picture camera.

In this lesson we'll concentrate on the fundamentals of planning, shooting, and editing that apply to any motion picture you might make, whether it's a travelogue for home viewing or an instructional film you're shooting on free-lance assignment. Then, in the following lesson, we'll go into the special requirements of filming for television.

In both these lessons there's a valuable carry-over of things you already know. As an experienced still photographer, you are acquainted with the problems of exposure, the use of different focal-length lenses, the basics of lighting and composition. Long shots, medium shots, and close-ups are no mystery to you. Nor is the creative use of color. So, even if you've never held a movie camera, you have a head start toward producing good motion pictures.

However, don't make the mistake of thinking that movies are no more than a series of still pictures. The motion picture is a unique form of communication and expression. Think of it as a flow of related pictures arranged in narrative sequence. Like the picture story we discussed in the photojournalism lesson, a movie needs an underlying theme or idea to give it continuity. It should center about a subject, and tell its story in a smooth, logical way that holds the viewer's interest.

Because a motion picture needs continuity, it must be carefully planned. Planning is as important as shooting, even with a simple home movie, if you want it to be more than a collection of random motion-picture "snapshots." We'll have quite a bit to say about planning in this lesson, and the methods you can use to clarify your thinking and guide your shooting.

Our guest expert for this lesson is Jack O'Reilly. A former still photographer who successfully made the transition to motion pictures, he has had many years of experience as a director and producer, and now heads his own moviemaking company. With examples from movie footage he has shot on location and in his studio, he will show you how to adapt your knowledge of still photography to the special techniques of seeing and shooting motion-picture subjects.

How motion pictures work

When you operate a movie camera, you are actually taking still shots in rapid succession–at 16 or 18 frames per second for silent films and 24 frames per second for sound films. Projected rapidly on a screen, the separate pictures blend together, giving the impression of continuous movement. This happens because the eye retains an image of what it sees for an instant after the image passes from view, and one picture overlaps the next.

This illusion of movement is the basis of the motion picture, and your job as a cameraman is to exploit it fully. You can do so in three ways: through *subject movement, camera movement,* and *controlling the tempo* of your shots.

Subject movement isn't hard to find. Many subjects–children or birds, for example–are almost constantly in motion. But subject movement occurs in more subtle ways, too–through the motion of wind, trees, water, and clouds, or through changing facial expressions and gestures. In motion-picture photography, avoid static, nonmoving subjects if possible. An audience quickly loses interest if nothing is happening on the screen.

While it's a good general rule to let the subject do the moving, not the camera, there are times when you must follow the action as it travels away from you or across your line of sight. On other occasions you will want to introduce movement into a static scene by switching from a high to a low camera angle, or by ranging over your subject to show it from different viewpoints, or by moving in from a long view to a close-up.

The third kind of movement can be accomplished by the way you combine your scenes. A series of short scenes can give a feeling of fast tempo even to a static subject, while a series of long scenes can set a leisurely pace. Also, you can add a feeling of movement by shifting your viewer's attention from one subject to another that is related to it in a dramatic way.

In a good movie, the transitions between scenes occur so smoothly and logically that we're hardly aware of them. Yet each is carefully planned. We'll show you the various methods of connecting one scene to the next that can help you keep your story moving from scene to scene. We'll also discuss how to achieve special effects such as slow and fast motion, and how to make interesting titles. [Sound is another important aspect of motion pictures, but we'll save that for the next lesson.]

We'll demonstrate many points with actual frames blown up from 16-mm and 35-mm footage shot by O'Reilly and others. [Keep in mind when you look at these that the quality of enlargement you get from a movie frame is not what you get from a still negative.]

Editing your film

When you finish shooting, your work is only partly done. The rolls of film that come back to you from the processing lab are merely the raw material for a motion picture. They become a finished production only after you've screened, cut, and rearranged the individual shots [or *takes,* as they are called] in meaningful order. This vital creative step–called *editing*–is often overlooked by amateurs, but good movies are as much a result of careful editing as of skillful shooting.

One of the first steps in editing is to "clean up" your raw footage. By applying scissors to film, you can remove frames or sequences that are poorly exposed, badly lighted, or overly long, or that just don't contribute to your story.

The next step is to join sections of film together so that they express more clearly or dramatically the ideas and emotions you want to get across. You may find you need to shorten some of the scenes you shot and perhaps change their order. Here is where you add the finishing touches that give your motion picture its structure, pace, and emphasis. We will describe and illustrate both the tools and techniques of editing and show you, step by step, how to use them.

When you run off on your projector a movie film that you have planned, shot, and edited yourself, you'll experience a real feeling of accomplishment. You are not only a photographer, but a scriptwriter, director, editor, and producer, too! Naturally, this lesson alone can't make you all of these things. But if you study the basic principles taught here and practice them diligently, you'll be well started on the road to successful moviemaking.

Motion-picture cameras

If you already have a movie camera and projector–or can borrow them–you'll be able to complete the assignments for this lesson with very little additional equipment. Many of the items used for still photography–exposure meter, tripod, floods and spots, light-stands, etc.–will serve well in motion-picture shooting, too.

Later on, when you can better gauge your long-range requirements, you may want to replace or add to your equipment from the almost endless variety of motion-picture cameras, projectors, attachments, and special accessories on the market.

Some of the more recent developments in movie equipment, such as automatic exposure control and zoom lenses, have considerably increased the cameraman's freedom and versatility. You should know about these refinements, but our advice is: Don't overemphasize mechanical features. At the start, concentrate on the fundamentals of planning, shooting, and editing, and remember that great motion pictures have been made with the simplest of equipment.

How a movie camera works

Although there are many makes and models of motion-picture cameras, all operate on the basic principle shown in the accompanying diagram.

A *spool* wound with motion-picture film is loaded into the camera. This film has a row of perforations, called *sprocket holes*, usually along each edge.

The film passes over a *sprocket*, which has teeth that engage the perforations, and is formed into a loop [called the *upper loop*] and then passes by an opening called a *film gate* [or gate, for short]. The gate is the place where each frame of film is exposed. A pressure plate bears on the film from behind to keep it absolutely flat during the time it is exposed. The film then forms a *lower loop*, passes under the lower part of the sprocket, and winds up on a *take-up spool*.

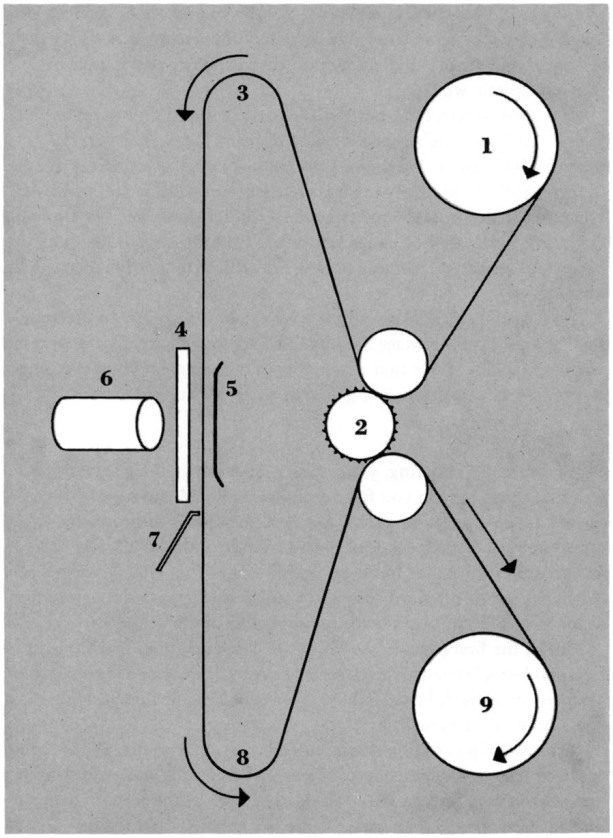
When you press the release button on your camera, the drive mechanism opens a shutter, allowing light to pass through the lens and form an image on the portion of film behind the gate. As the shutter closes, a metal *claw* catches the film in one of the sprocket holes and advances the film just enough to pull the exposed frame away from the gate and put a new, unexposed portion of film in position. The shutter opens again, the new frame is exposed, and so on.

As we have indicated, the film moves past the gate *intermittently*. That is, it advances, then stops for a moment, advances again, then stops. However, the sprocket rotates *continuously*, feeding unexposed film into the upper loop, and pulling exposed film off the lower loop and onto the take-up spool. The two loops must be big enough to allow slack for the intermittent movement past the gate or the film may jam.

Claw, shutter, sprocket and take-up spool are powered by the camera's drive mechanism, usually a spring-wound or battery-powered motor. In a camera designed for shooting silent movies, usually sixteen [sometimes eighteen] frames of film are exposed each second, and we say the camera has a speed of sixteen [or eighteen] frames per second [sometimes abbreviated as *fps*]. The film is projected at this same speed. Cameras designed for sound motion pictures run at a speed of twenty-four frames per second, and the film is also projected at this speed.

If your camera has a *variable speed control*, you may be able to set it to take more or less than the standard number of frames per second. This allows you to get slow-motion or speeded-up action effects, as we'll explain later. If your camera has provision for *single-frame shooting*, it permits you to expose just one frame of film at a time. This, too, has interesting uses which we'll discuss. Also useful is a wind-back mechanism that allows you to wind back the film so you can make double exposures and create other effects.

The typical movie-camera shutter is a blade shaped something like a half-moon. It rotates, alternately covering and exposing the gate. On less advanced cameras its speed is fixed [generally at about 1/35 or 1/40 second on 8-mm amateur equipment]. *Thus you must rely on aperture only to control exposure.* On more advanced cameras, the shutter speed may be variable, giving you an alternate way to control exposure.



How film travels through a movie camera

1 Spool of unexposed film
2 Sprocket [with teeth that engage perforations along film edges]
3 Upper loop of film
4 Film gate
5 Pressure plate
6 Lens
7 Claw [advances film a frame at a time]
8 Lower loop of film
9 Take-up spool

Camera sizes

Movie cameras are classified according to the width of film they use. In the United States, the commonly used sizes are 8 mm, 16 mm, and 35 mm.

The 8-mm size is used almost exclusively for amateur shooting. The film itself is relatively inexpensive, and lightweight, compact 8-mm cameras are available in a wide price range. The more advanced models have a number of special features once found only on larger equipment. Film-loading capacity is relatively small–usually twenty-five feet of "double-eight" film. Double-eight film is 16 mm wide. It is run through an 8-mm camera *twice*, so that two parallel 8-mm strips are exposed in turn. In processing, the film is cut down the middle and the two strips are joined together, giving you a total of fifty feet of finished 8-mm film.

You can project 8-mm film up to a size large enough for the usual living room audience. An 8-mm camera will be satisfactory for completing your work for this lesson.

To show films to a larger audience you need 16-mm film in order to project a screen image of adequate size without undue loss of quality. Because of the better technical quality of the image, and the practicality of projecting it before large groups, 16 mm is widely used by professionals and advanced amateurs. Although generally larger and heavier than 8-mm equipment, 16-mm cameras are compact enough to be convenient for shooting on location, and often are used for news, documentary, educational, and industrial movies.

Sixteen-millimeter cameras take a larger film load [up to 1,200 feet] and have refinements and features not commonly found on 8-mm cameras. However, the cost of 16-mm cameras and film is considerably greater than 8 mm.

You probably won't encounter 35-mm equipment unless you work with a professional motion-picture company producing feature-length films for showing in theaters or on television. Although a 35-mm camera gives the finest technical quality available, the equipment is so expensive and the cost of the film so high that shooting 35-mm movies is impractical for most amateur moviemakers.

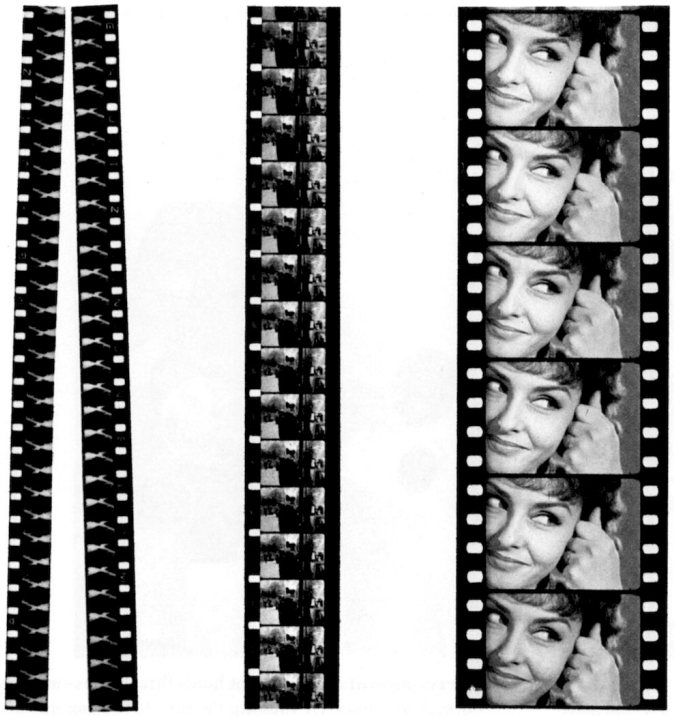
Camera motors

Most small movie cameras are powered by a spring mechanism which you wind with a key on the side of the camera. At normal speeds, a spring motor will run for 25-40 seconds–enough for most shots. It's a good idea to rewind after each shot so you'll be sure the motor doesn't run down in the middle of a scene.

Some amateur and most professional models have an electric motor, usually powered by batteries. The main advantage of the electric motor is constant, dependable drive, so that you can shoot an entire roll without stopping to rewind. Also, an electric-drive camera has less vibration and you can operate it by remote control with an extension cord.

Types of film loads

If your camera is of the *spool-loading type*, you place a spool of film on a spindle in the camera and thread the film through the picture gate to the take-up spool, as shown in the diagram on the facing page. With a *magazine-type* load, you simply insert the complete magazine [a light-tight container] in position. Whichever type you use, *carefully read and follow the manufacturer's instructions for loading and unloading*. Improperly loaded film is one of the biggest causes of failure in amateur motion-picture photography.



8 mm **16 mm** **35 mm**

Three sizes of motion-picture film

Here, reproduced actual size, are the three sizes of motion-picture film most commonly used in the United States. At far left is a strip of double-eight film. This is 16 mm wide, but is run through an 8-mm movie camera twice; first the left half is exposed, then the right half. After processing, the film is split as shown, so the end product is 8 mm wide. Because of its economy, 8 mm is the most popular size for amateur movies.

The center strip is 16-mm film. The larger negative area gives better quality and allows the film to be projected on a relatively large screen. This size film is widely used in industrial, educational, and documentary motion-picture photography, and by advanced amateurs.

The last strip is 35-mm film–the standard film for professional motion-picture shooting. It gives the best technical quality, but is the most expensive.

Exposure control

On a movie camera, we've said, exposure usually is controlled by the lens aperture only, with the shutter working at a fixed speed. There are three basic kinds of exposure control–manual, semiautomatic, and automatic.

On a camera with *manual exposure control,* you open up or stop down the lens by turning a diaphragm control on the lens mount, just as you do on a still camera.

If your camera has *semiautomatic exposure control,* a built-in exposure meter takes a reading and moves a marker visible when you look into your viewfinder. You adjust the diaphragm control until this marker is centered.

On a camera with fully *automatic exposure control,* a built-in meter is coupled directly to the diaphragm and the camera sets the exposure itself.

Semiautomatic and fully automatic exposure controls are very popular on 8-mm equipment today. They are particularly useful if lighting conditions change while you're shooting, and you don't have time to take a new reading and reset the aperture. However, we recommend that if you purchase a movie camera with exposure automation you get one that *also allows manual control.* This gives you greater freedom to achieve special effects such as silhouettes, deliberate over- and underexposure, etc. We suggest you review the discussion of built-in meters and how to use them in our lesson on black-and-white photography. The basic principles of using meters with still cameras also apply to motion-picture cameras.

Viewfinding systems

The simplest movie camera viewfinder is a combination of an eyepiece and a rectangular frame mounted on top of the camera. Other models have optical viewfinders built into the camera. A viewfinder is adequate for shooting movies at normal distances, but not so convenient for very close shooting, where parallax can become a problem and focusing is very critical.

Some 8-mm, 16-mm, and 35-mm cameras are equipped with reflex viewing, which permits you to focus and compose while actually seeing through the taking lens. A magnifying and focusing eyepiece often is provided to give you a clearer, more detailed image for focusing. Reflex viewing attachments are available for viewfinder cameras when you want to use them for very close-up shooting.

Movie-camera lenses

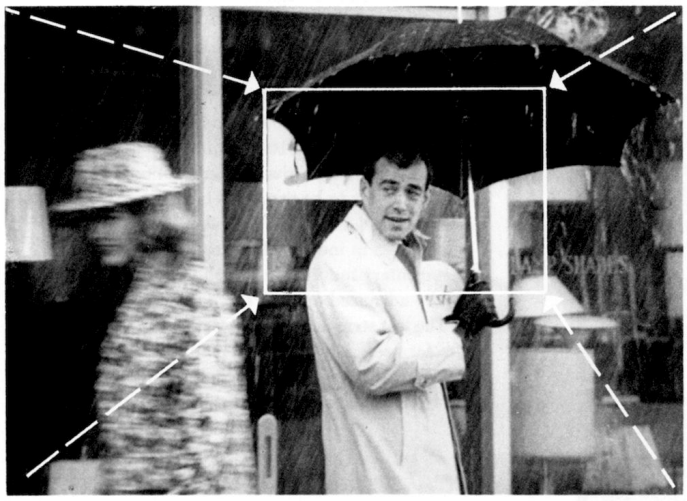
Lenses of relatively short focal length are used in 8-mm and 16-mm cameras. For example, here are the focal lengths generally considered to be "wide angle," "normal," and "long" for both types of camera.

	8-mm camera	**16-mm camera**
wide-angle lens	6-9 mm	13-17 mm
normal lens	12-13 mm	25 mm
long lens	25-38 mm	38-75 mm

Because of their very short focal length, the wide-angle and normal lenses for 8-mm cameras often come in fixed [nonfocusing] mounts. The great depth of field they provide is enough to give you a sharp picture at normal shooting distances–without focusing. For more critical work [as at very close distances or with longer focal lengths] a lens in a focusing mount is recommended. These lenses have a focusing scale similar to the focusing scale on still-camera lenses. With a viewfinder movie camera, you measure or guess the subject distance and set the scale. With a reflex movie camera you can focus by observing the image in the reflex viewer.

Most movie cameras permit lens interchangeability. The lens is provided with a threaded or bayonet-type mount that attaches to the camera. A much more rapid and convenient arrangement is provided by a camera with a *turret mount*–a set of two or three lenses mounted in a rotating turret [*bottom right*]. You can make a quick change of focal length simply by rotating the turret until the desired lens locks into position. Most turrets also have viewing lenses that match the taking lenses so that your viewfinder shows you the effect you're getting with each lens.

A *zoom lens* provides an even more rapid change of focal length. By moving a lever or turning the mount, you can get any focal length you want between the longest and shortest extremes of the lens. In motion-picture photography a zoom lens also can give you the effect of moving toward or away from the subject if you change the focal length *while you are shooting.* We'll have more to say about this effect.



Zoom lens: A zoom lens can create the effect of moving in on a subject. In this scene of a man reacting to a pretty girl, you might start with the zoom lens set to give you an overall view that includes both the man and the girl, then zoom in, as indicated by the arrows, for a close-up of his expression.
[Courtesy Ellington and Co.]

Turret mount: This mount holds three lenses–wide angle, normal, and long. By rotating the turret, you can quickly change to any of the three you need. A viewfinder with three eyepieces–one for each of the lenses–is located to one side of the mount. If you prefocus each lens, you can change from one to another even while your camera is running.

Movie film

Both black-and-white and color movie film come in *reversal* and *negative* types. When reversal film is processed, it gives a positive image directly on the film you shoot. Thus, you use the same film for shooting and viewing. Reversal film is commonly used whenever you need only a single copy.

If you think you will need additional copies, it's better to work with negative film, which can be used to make as many extra prints as you wish and allows you to correct exposure errors to some degree. The prints are positives made on a transparent film base. Although it is possible to obtain tanks for processing motion-picture film, most photographers prefer to leave the job to the labs. Processing movie film is much more expensive and complex than processing still film.

Black-and-white movie film: This film is generally panchromatic –that is, sensitive to a full range of visible colors. Because of the great enlargement that takes place on the projection screen, most motion-picture film emulsion is fine grained.

Although most home movies are made in color, don't overlook the advantages of black and white for many applications. It is less expensive than color, has a wider range of film speeds and more latitude for exposure error. Often you can create a mood or atmosphere most powerfully with the subtle tone gradations possible in black and white.

If you're shooting both indoors and outdoors, choose a medium-speed film; otherwise overexposure may result when you move into bright sunlight. For dim lighting conditions, use one of the high-speed emulsions. If, while using fast film, you should encounter a particularly bright scene such as one showing the glare from a furnace, you can reduce the light with a neutral-density filter.

Color movie film: Color-*negative* film is available in 35-mm size only. Reversal color films that produce a positive color image are available in 8, 16, and 35 mm. Quality and speed have been improved considerably in recent years, so that you can make good color motion pictures under a wide range of light conditions. Pick a type that is matched to the color temperature of your light–daylight film for outdoor shooting and Type A for indoor work with photofloods, for example.

Filters

Filters serve much the same purpose in motion-picture shooting as in still photography. You can use them to lighten or darken the values in your black-and-white films, to penetrate haze or cut glare, and to balance a color film to a light source. Movie filters also serve some special purposes which we'll discuss.

An important point to keep in mind when you use filters is the matter of *continuity*–matching one scene with another. In still photography you might take shots with and without a filter to get a variety of effects. For a motion picture, however, you should pick one effect and stick to it. If you're filming an outdoor sequence and decide to darken the sky with a medium yellow filter, for example, it's better to take all your shots with the filter or the viewer may be conscious of a break in continuity. Of course, if you want to change the picture's mood–say to simulate the approach of nightfall–then go ahead and use a filter if this will help.

Here are the principal types of filters used in movie shooting:

Skylight or UV filter: These reduce the excessive blue that often occurs in scenes on a hazy or cloudy day or in open shade under a blue sky. They also cut haze in scenic long shots such as of a distant mountain range or city skyline, and are useful at high altitudes. No exposure compensation is necessary.

Black-and-white filters: The filters used in black-and-white still photography also are useful in movie shooting. They can serve to change the relationship of tonal values in the same way. You'll find them helpful when you want to make sure that the action stands out clearly against a background of the same gray value. For example, if you're filming a person passing in front of a row of shrubs, a green filter might be used to lighten the background and accent the figure. A medium yellow, orange, or red can be used to darken the sky.

When shooting an industrial film, you might use filters to emphasize details such as signs, brand names, or machine parts. Let's say the company's name or trademark appears in blue against a red background. A red filter might be used to sharpen the contrast by darkening the blue and lightening the red.

Polarizing filters: Suppose you encounter a surface such as water that throws off a disturbing glare. A polarizing filter often will subdue the hot spots. You can also use it to cut down reflections when shooting through a window. And, just as in still photography, you can use it with color film to darken the blue sky.

Color conversion filters: Sometimes you may want to take both indoor and outdoor shots on the same roll of film. In that event, a good procedure is to load your camera with Type A [indoor] film and use a conversion filter to restore the color balance when you shoot in sunlight. [You'll find a chart of recommended conversion filters for various types of motion-picture film in the section on motion-picture photography in your Technical Manual.]

Neutral density filters: The main purpose of these filters is to prevent overexposure when shooting fast film in very bright light. They reduce the amount of light reaching the lens without altering the light-and-dark tones or colors in the scene.

Often you could achieve the same result by stopping down your lens aperture, but you might want to avoid this because of the effect on depth of field. On other occasions the light may be too intense for even the smallest lens stop. Since you can't increase the shutter speed as in still photography, the light-reducing neutral density filter may be the only answer to the problem.

Neutral density filters come in various strengths, and can be used with both black-and-white and color film. See the section on black-and-white filters in your Technical Manual for details.

At left is a portion of a 35-mm *negative*. It can be used to produce any number of positive prints desired. Most professional movies are shot on negative film for this reason. At right is a strip from a motion-picture *print*. The values are positive–that is, the blacks and whites are as the eye sees them.

Camera handling

Steadiness and smoothness–these are the watchwords in movie-camera handling. In still photography you must avoid camera shake during the moment of exposure, but when you're shooting a motion picture the steadiness must be continuous over a period of seconds or even minutes. Furthermore, when a motion-picture image is projected on a screen it undergoes a much higher degree of enlargement than most still pictures. Even a slight unsteadiness will show up as magnified bounces and jiggles.

The first, and most important, rule of movie-camera handling is: *Use a tripod or other firm camera support whenever you can.* With a light, portable 8-mm camera, you may be tempted to take all your shots hand-held, but a sturdy, vibration-free support will result in markedly better picture quality. If your camera has interchangeable lenses, you can often "tie it down"–that is, keep the tripod in a fixed position while you get long shots, medium shots, and close-ups by changing lenses.

When you're caught without a tripod–or when it isn't convenient to use one–you can often keep the camera motionless by resting it on a solid surface such as a table, post, fence rail, or even a car fender.

Of course, there will be times when you'll prefer the greater freedom and mobility of hand shooting. You can still get steady pictures if you learn to use your body as a camera support and shock absorber, following the methods demonstrated here. It helps to use the breathing technique we described in the photojournalism lesson: Take a deep breath, exhale a little, then hold the rest while you shoot. Try to stay as relaxed as possible to avoid muscle tension and be sure you have a firm, comfortable stance, with legs fairly wide apart.

Shooting from a moving vehicle

Sometimes you may want to follow action such as a parade, and your problems of keeping a steady camera will become more acute. On Hollywood movie sets the cameramen use special equipment–for example, carts that run on tracks or balloon tires–for these so-called *trucking shots*, but you'll probably have to do the best you can with the transportation at hand.

If you can rig a platform on the luggage rack of a car, you can use a tripod, as newsreel cameramen do. Just be sure the road surface is smooth and have the driver stay in second gear. *Important: Take care to tie or strap the tripod legs securely to the platform.*

When shooting from the deck of a cruiser or speedboat it's best to hand-hold the camera, as a tripod or other camera support will pick up engine vibration and the movement of the vessel. Keep your weight on your toes and your knees flexed, so you can bend and sway and take advantage of the shock-absorbing quality of your body. *Watch the horizon line and keep it level in your viewfinder.* A wobbly horizon gives the viewer an uncomfortable feeling that detracts from his enjoyment of the film.

Focal length affects steadiness

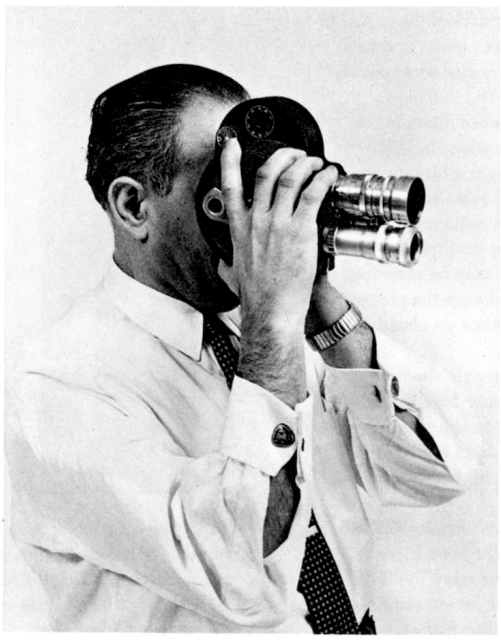
You run less risk of camera movement with a short lens than with a long one. A wide-angle lens, for example, gives you a greater frame area and smaller image size, which act as safety factors, making camera movement less noticeable.

Just the opposite is true of a long lens, as you may recall. The image is greatly magnified, and so are the vibrations of the camera. *Use a tripod with a long lens,* as it's virtually impossible to keep the camera steady enough for hand-held movie shooting. Exceptions are when you are following a moving subject or shooting a very brief shot. In these circumstances the vibration usually goes unnoticed.

Keep this relationship between lens and camera movement in mind if you have a zoom lens on your camera. When you zoom out to any focal length beyond normal, be sure your camera is firmly supported.

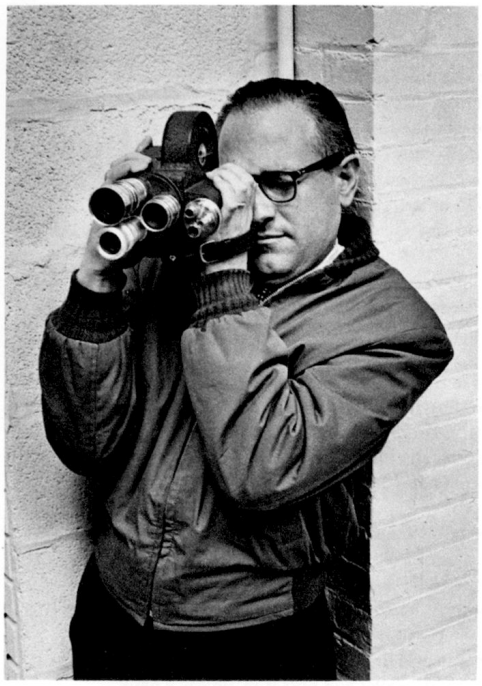
When shooting scenery from inside a moving automobile, use a wide-angle lens so that the smaller image minimizes vibration. Then, if your camera has variable speed, *increase* the frames-per-second speed. This will slow down the action and help to smooth out any jerkiness from bumps and jolts of the car.

In the following illustrations, we demonstrate a variety of camera-handling techniques to meet different situations. After studying them, make some dry runs with your own equipment. Practice until smooth, steady camera handling comes as naturally as setting the diaphragm control or pressing the release button.



A good stance for holding a movie camera is shown at far left. It's similar to what we recommended for still photography. Your feet should be slightly apart, with the toes pointing in different directions. Bend your knees slightly and keep your weight on the balls of your feet. The camera should be over your knees for greatest stability. Depending on the size and weight of your camera, you may find it steadier and more comfortable to bend back a little at the waist. Many movie cameras are equipped with a strap, as is this one. For a firm, comfortable grip on the camera, adjust the strap till it is tight enough for you to feel its pressure on the back of your hand.

Be careful not to jar the camera when pressing the release button. The best way is to keep your forefinger free and slightly curled, then operate the button as if you were gently tapping a piano key. If you can't hold your breath during the entire sequence, breathe very slowly and gently.



For added steadiness when shooting without a tripod, brace yourself for extra support just as you would with a still camera. One good method is to wedge yourself into a corner, as demonstrated. Press your back and one side against the wall to get maximum support.

The proper way to carry a tripod is shown at left. Fold the legs together and hold them securely. Lift the tripod straight up and *keep it close to your body in a vertical position* when you move. Don't let the tripod tip and swing around–it might strike something.

When you put the tripod down, first place the front leg in position, then grasp the other two legs and pull them back, as shown at right. Be sure all three legs are far enough apart so the tripod isn't tippy. Then make your final adjustments to get the camera perfectly level.

In these two pictures Jack O'Reilly demonstrates a good method for hand-holding a movie camera for very low shots. Kneel on one leg and rest the elbow of one arm on the raised knee. If you want to pan the camera [swing it horizontally while shooting], keep your elbows free and rotate your body at the waist, as in the second picture.

When shooting from a boat or other moving vehicle, bend your knees, put your weight on the balls of your feet, and get your heels off the deck as demonstrated by O'Reilly. Absorb the bumps with your legs and try to keep your upper body steady.

How to plan a movie

Once you understand the basic working parts of your motion-picture camera, can handle it comfortably, and hold it steady, you're ready to start making movies. With your experience as a still photographer in lighting, composition, exposure, etc., you should find the transition to moviemaking an easy one, and soon feel as much at home looking through the viewfinder of a movie camera as you do with your still camera.

But before you expose a frame of film, remember what we said on the first page of this lesson–a good motion picture is more than just a series of snapshots with motion in them. To catch and hold the interest of your audience *a film must tell a story*–a story that flows smoothly and logically from the beginning, through the middle, to the end. All good films–regardless of the subject–have this narrative, story-telling quality. It is the essence of the art of motion pictures.

The narrative quality in a full-length feature is obvious. In a great film such as *The Informer* or *The Bridge on the River Kwai* we become totally absorbed by the events on the screen and are carried along by their unfolding. The experience may be so vivid that after the movie is over we feel we've actually lived through the events ourselves.

A similar effect can be achieved in short, factual films, even though the subject is less dramatic. Suppose, for example, that you want to take movies of a family picnic at the beach. Two approaches are possible. You could merely bring along your loaded camera and shoot at random. This might give you some appealing shots, but there would be nothing to tie them together, no narrative flow. On the other hand, you could plan to shoot a little film story on the entire outing. You might decide to show the family packing the car, leaving the house, setting up at the beach, cooking the hot dogs, enjoying the food, and finally packing up for the return home. While at the beach you also might shoot a number of unplanned scenes. But now you'll be able to fit them into the framework of a story that has a beginning, middle, and end. Just a little planning like this to give your film a story-telling structure can make it much more interesting and meaningful to your audience.

Work out a story treatment

The first step in making a successful motion picture on any subject is to work out what is known as a *story treatment*. For most amateur films this just means jotting down a brief outline of the action you want to show. You don't need a complicated plot or elaborate descriptions. In fact, the simpler you keep things the better.

Let's suppose you want to make some shots of Jimmy riding his new bike. With a little imagination you could work out an interesting little story that has human interest, changes of scene, and touches of humor and suspense. Your treatment might go somewhat like this.

'The New Bicycle'

Open with Jimmy on the arm of his father's chair. He places a magazine over father's newspaper and points to an ad for a racing bike.

Father gets up, walks to the window, and points to the lawn, where we see a lawnmower standing just as Jimmy left it. Then father points to the mud-splattered car in the driveway.

Next we see Jimmy going about his chores, mowing the lawn and washing the car. The scenes come in quick succession to give a feeling of furious activity.

Next we show Jimmy in his room, emptying out his bank and adding up his earnings. The bicycle ad is tacked to his bulletin board. A close-up of Jimmy's handwritten figures in a school notebook shows he is still five dollars short of the amount he needs. He closes the book and leaves.

Father enters the room, opens the book, and reads the figures. He takes a five-dollar bill from his wallet and puts it in Jimmy's bank.

The great day arrives and the bike is delivered to the house. Jimmy examines it delightedly. Father decides to test it, wobbles as far as the front sidewalk, and falls off. Jimmy retrieves the bike, gets on it, and rides expertly down the street.

With a treatment like this, you have organized your shooting around a central story-telling idea. You're still recording Jimmy and his bike for the family, but you're doing it in a way that will catch and hold the interest of any audience.

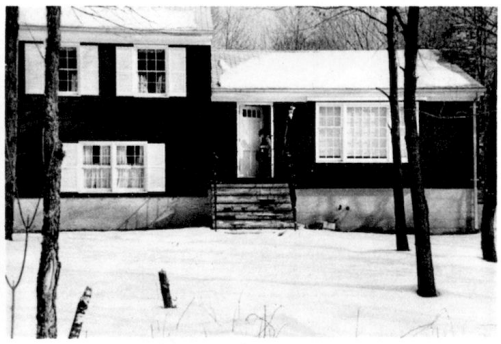
Making a shot list

Sometimes a brief story treatment like the sample we have given is enough for you to go on. But usually it's a good idea to refine your

Types of shots

A key part of planning any movie is to work out a list of shots that tell your story in a logical sequence. The basic types of shots are shown at right. Decide which type is best for each phase of the action you are showing. The most common sequence is to go from a long shot [or medium long shot] to a medium shot to a close-up. This is the way we naturally see things–first we get an overall impression of a scene, then we concentrate on details within it. But don't follow the LS–MS–CU sequence all the time or it will become boring. For example, you might create visual excitement by cutting suddenly from a long shot to an extreme close-up, or by showing a sequence of close-ups in rapid succession. Changing your camera angle, as well as the field of view, provides still another way to give variety to your film, as we'll demonstrate later.

Long shot [LS]: Use a long shot to establish the scene in which the action takes place. [A long shot sometimes is called an *establishing shot* when used for this purpose.] Include enough of the surroundings to give your viewers a good overall view.



Medium long shot [MLS]: This shot brings us closer to the action but the surroundings are still the most important part of the composition. It's often used as a transition between a long shot and a medium shot.

thinking a little more and prepare a detailed *shot list.* This is a list of all the shots you must have to tell your story. In longer, more complex films, and in any professional shooting, a shot list is absolutely essential. It serves as a guide in planning and taking your shots–and insures that there will be no gaps when you finish shooting and start putting your film together.

In breaking down your story treatment into individual shots, think in terms of whether an overall view, a medium shot, or a close-up will be most effective in each case. These basic types of shots have much the same uses in motion-picture photography as they do in photojournalism. However, in motion-picture scripts and shot lists a more refined classification of five shots, rather than just three, is the usual practice. These types of shots and their abbreviations are as follows:

long shot	LS
medium long shot	MLS
medium shot	MS
close-up	CU
extreme close-up	ECU

These classifications are relative, depending on the size of the subject. For example, if you're photographing a mountain range, a long shot would need to include a sweeping panoramic view many miles across. But if your subject is a small boy, a long shot might just show a playground with the boy in it. Examples of these five types of shots are illustrated below; on the following pages we'll show how they are used in an actual film.

For each shot on your list, decide what type is required and indicate this by its abbreviation–LS, MS, ECU, etc. It's important to plan things in detail because in motion-picture shooting, unlike still photography, *you can't crop the picture.* You must shoot it the way you want to show it.

A sample shot list

As a good example of a shot list, we've reproduced one used by Jack O'Reilly in making a three-minute documentary film to promote Little League baseball in a Long Island, New York, community. The message he wanted to get across was this: [1] It's dangerous for children to play ball in the street. [2] To get them off the street requires a place to play, proper equipment, and supervision. [3] Little League supplies all this–provided you contribute. [4] You can contribute in the theater lobby by putting money in the collection box.

Notice how the photographer built his shot list on scenes with action–one after another. This is the surest way to hold your audience's attention. Also, he planned to have a variety of long shots, medium shots, and close-ups so his film would maintain a constant visual change of pace.

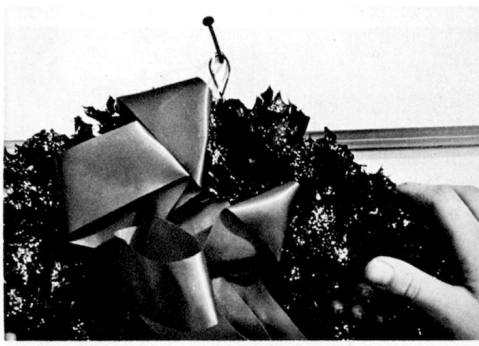
'Play Ball!'

1 CU of title–"Play Ball!"–in bold letters against a background drawing of a baseball field. Zoom to ECU of letters.
2 MLS of boys playing ball in the street. Batter hits ball and one of the younger boys runs after it. He catches the ball and starts back just as a car approaches.
3 Zoom to ECU of car bumper as the driver slams on the brakes, narrowly missing the boy.
4 MLS. The boy dejectedly walks away from the game. A motherly onlooker enters from the right and puts her arm around his shoulders. She hands him a pamphlet.
5 ECU of pamphlet with drawing of uniformed ballplayer and a Little League headline.
6 MS of the boy reporting for practice at the Little League field. The coach hands him a uniform with team insignia.
7 MS of boys getting pitching instruction from the coach.
8 CU of mitts and bats on ground. Boy's hands reach down and pick up the equipment.
9 CU of pitcher winding up for a throw.
10 MS of the boy at bat. He swings and hits the ball.
11 LS of the boy running bases.
12 MS of the boy sliding into home base just ahead of ball. The umpire signals he's safe.
13 ECU of Little League poster: "We need your help! Please give."
14 ECU of another portion of poster: "Contribution box in lobby."

On the following pages we've reproduced key frames from the footage O'Reilly shot. They are worth your careful study as a demonstration of how effective planning helps make a good film.

Medium shot [MS]: The action holds our attention in a medium shot. When people are the subject, the medium shot shows them full figure.

Close-up [CU]: Only a portion of the subject is visible in a close-up. The subject dominates, although some of the background may show.



Extreme close-up [ECU]: This shot is used to show one detail, often an important point in the story.

Putting your plan into action

The shot list on the previous page is the kind of simple, orderly breakdown of scenes that you might prepare to guide your shooting of a home movie or short documentary film. Now let's see how O'Reilly translated his shot list into a motion picture.

Note that the purpose of "Play Ball!"–to stimulate interest in the Little League–is carried out in the form of a documentary narrative about a central character–one boy. This gives the story continuity and human interest.

The accompanying pictures are only a few frames taken from key scenes but they demonstrate the importance of planning your movie step by step. As you study them, notice how O'Reilly achieved variety by changing his camera angle for almost every shot. Also, observe how each bit of action makes a point of its own and moves the story forward toward the message at the end. This should be your goal in any story-telling motion picture you shoot. *Work out your story and stick to it.*

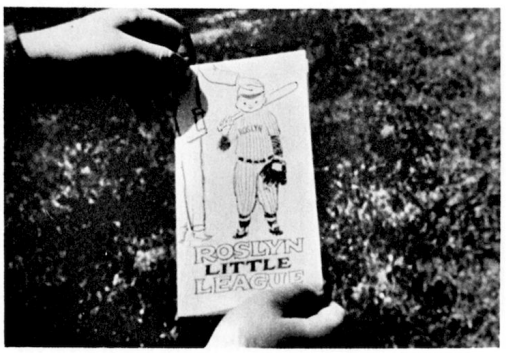
1 A short, snappy title is a good device to introduce a fast-moving film. It puts the audience in the right mood and gives them an idea of what the picture is about. Often, you can use a poster, billboard, or advertisement, photographed at close range, for your title. Or you might have someone with art training letter one for you, as O'Reilly did here. The photographer put some action into this otherwise static shot by zooming in for an extreme close-up of the letters.

2 Set your stage right at the start. A long or medium long shot usually is best, because it quickly establishes the locale. Here, O'Reilly used a street in Roslyn, Long Island, which the local theater audience would immediately recognize. After a few seconds of ball-playing action, he had one of the boys run in front of an approaching car. Now the story is under way.

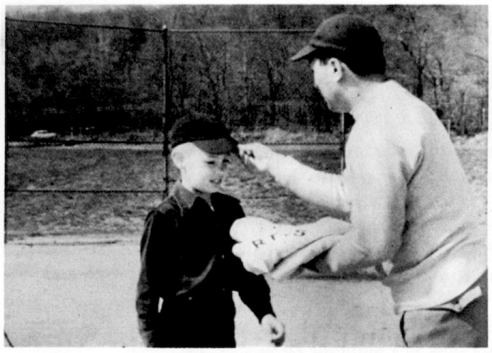
3 A close-up or extreme close-up immediately following a long shot has dramatic impact. But be sure that it makes sense from a story point of view. In this case the ECU of the car bumper heightens the effect of near-disaster as the car brakes to a stop.

4 Here the photographer departed from his shot list to include a close-up of the driver shouting at the boy. He realized that he needed this additional bit of action to lead into the scene that follows. Don't feel that you're committed to your shot list in every last detail. Often, new ideas will come to you when you're shooting. If they seem good, shoot them, even if they aren't on your list.

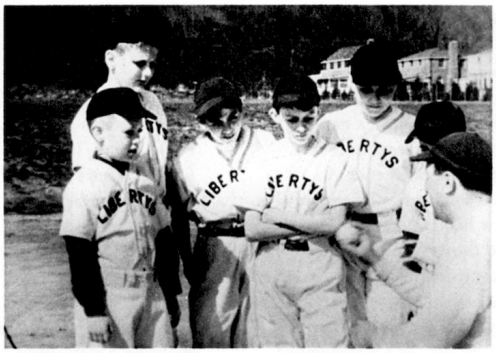
5 As the boy dejectedly walks away, a woman comes up and shows him a pamphlet. Now we get a clear look at the boy's face. When you're building a shot list, always include an "identification shot" like this so your audience will be properly introduced to the central character. You might do it with a close-up of his face or with a medium shot showing some action, as O'Reilly did here.



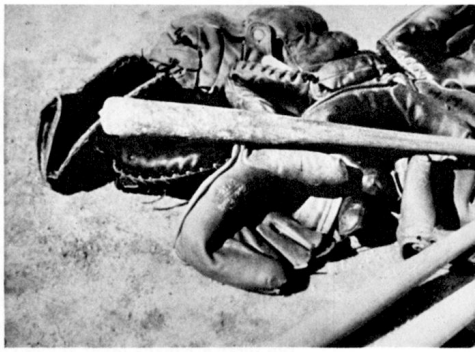
6 You can use an extreme close-up when you want to show printed matter–it provides a vivid, quick way of getting a message across. This device, called a "cut-in," will be described in detail later in the lesson. Here it immediately establishes the idea that the Little League offers a good solution to the boy's problem.



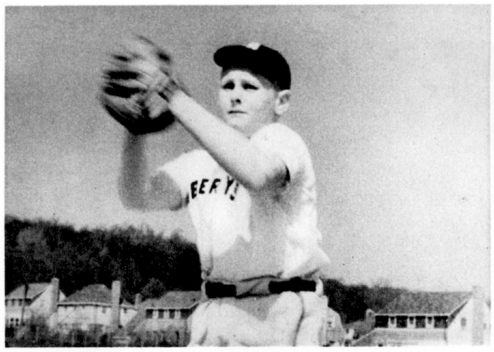
7 Now that the boy has been established as the main character, the camera will follow him through to the end. In this medium shot he is reporting for practice at the Little League field. Note that he is facing the camera while the coach, a secondary character, has his face turned away from the audience.



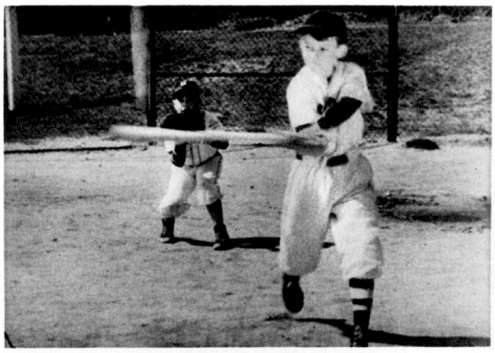
8 This group shot, with the boy in uniform and a member of the team, moves the action completely away from the street scene and focuses attention on the Little League.



9 Here is a close-up used as a transition to take the audience from the practice field to an actual game in the next episode. By showing equipment [which the boys pick up as they hurry past], it also implies why contributions are needed.



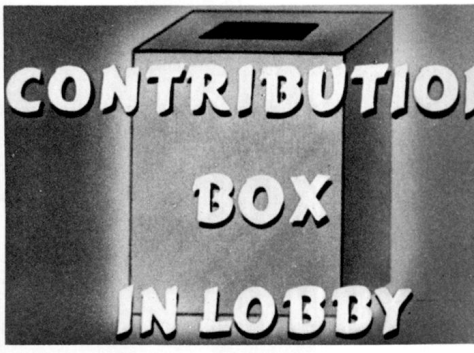
10 A fairly close shot of a pitcher winding up quickly tells the viewer that a game is in progress. O'Reilly might have accomplished the same thing with a long shot from the grandstand. However, this viewpoint has more immediacy.



11 With this shot of the boy at bat we are moving toward the climax of the story. When you reach this stage, you may want to gradually decrease the length of your shots to build up a feeling of mounting excitement and suspense. But be sure your audience can clearly follow the action. For example, the pitcher's windup and delivery in the previous scene naturally leads to this shot.

12 By switching to a long shot of the boy rounding the bases, O'Reilly can stretch out the action and build up the suspense. He's following the boy's motion by panning the camera–a technique we'll discuss in detail later.

13 The conclusion of a film is as important as the opening. It sets the impression that the audience will carry away. Here, the photographer finished on a strong, positive note with a shot of the boy sliding into home base and the umpire signaling that he's safe. It neatly wraps up the story.



14 The final action scene prepares the way for this appeal at the end. In a sound film, a narrator might appear at this point and talk directly to the audience. In a silent movie, a lettered title with a drawing of the contribution box does the job.
[Courtesy Gray-O'Reilly Productions]

Finding good camera angles

A motion picture is a sequence of a number of scenes, linked together. If all the scenes were shot from one angle–say eye level–the effect would be tiresome when the movie was projected. So, as a general rule, *use a new angle for each scene.* You might change image size and shooting distance, too, but often a fresh angle alone is enough.

Let's go back to the home-movie episode we mentioned earlier of a boy mowing grass to earn money for a new bicycle. Perhaps you'll begin with an eye-level shot of the boy and the lawnmower, taken in profile. This *flat angle* will establish the scene and orient the viewer to what is happening. It frequently is the best way to show the action, especially if the subject is moving across your line of sight.

But there are many other angles you could use. You'll remember from still photography that a *low* camera angle exaggerates height and makes the subject seem more important and powerful. To show that the boy is vigorously attacking the job, for the next scene you might crouch in his path as he approaches you and shoot up, with his figure outlined against the sky.

Next you might take a low side-angle shot of the mower wheels turning and the grass clippings flying. By shooting almost at right angles, you give the impression of speed since the movement is taking place across your line of sight.

Later, you want to show that the boy is tiring and his earlier enthusiasm is gone. So you try a *high-angle* shot from an upper story of the house, looking down on the lawn. Your subject's figure is foreshortened now and he moves slowly across what seems to be a vast expanse of grass.

By changing angles constantly, you have not only given your viewer a fresh viewpoint with each scene; you've also used camera angles to help tell your story and express the subject's changing emotional reactions.

Alternating your camera angles is just as important when you are shooting a stationary subject such as a building. Often you can introduce the feeling of motion by ranging from low to high angles and from head-on to side views. At the same time you are giving more complete information about your subject.

Although variety is important, always be sure there is a valid reason for the angle you choose. Don't become "angle-happy."

Study your subject from different angles in your viewfinder first and then select the ones that best get across the points you want to make in your film.

Flat angle: Often, shooting with the camera at about the subject's level shows the action most clearly.

Low angle: Shooting up at your subject gives it more importance and provides your viewers with a visual change of pace.

High angle: Find a vantage point that lets you shoot down on your subject, too. A combination of high angle and medium long shot works well.

A change of camera angle can add movement to a static subject. Here, for example, are two frames from a film by O'Reilly showing New York skyscrapers. Notice that he not only changed the angles from high to low but also tipped his camera to right, then left. These views, flashed on the screen in rapid sequence, give an impression of dynamic action. It's a device you shouldn't overdo, however.
[Courtesy St. John's University]

How long should a scene last?

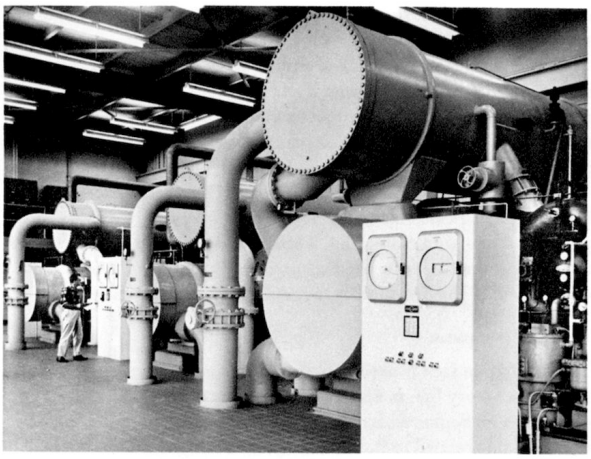
When you start making movies you may find that you tend to move rapidly from subject to subject. Your eye catches a glimpse of something over to one side or the other and you are tempted to swing the camera around to shoot it.

Don't be in too big a hurry. Your viewers need time to take in one pattern of action before you move them on to the next. Remember that you can always cut out excess footage when you edit your film. But there's no way to stretch a scene that's too short.

Five seconds is generally considered the minimum time for an average viewer to get a clear look at what's on the screen. If you find you're moving too fast, count to five slowly with the camera running before you change scenes.

How far beyond the five-second minimum should you go? The only answer we can give is a general one. *Keep shooting as long as the subject is interesting and contributes to your story.* Usually, around twenty seconds is the most it's wise to shoot without changing camera angle or distance, but there are exceptions. A bit of action may develop unexpected drama. If so, keep the camera running until the action has passed its peak.

The nature of your subject also affects shooting time. Your audience can "read" a close-up of a face, for example, in a few seconds. But if you are filming a group of people, or making a long shot of an ornately decorated room, give your viewers time to digest all the important information in the scene.



Allow ample time for the viewer to take in the details of a complex subject like this in a long or medium long shot. Generally, a scene will seem to go by faster on the screen than it does while you are shooting. Make a practice of counting off the seconds, and be sure you hold the shot long enough.
[Photograph by Arthur d'Arazien, courtesy Carrier Corp.]

Close-ups usually can run rather short. A few seconds is all we need to read the expression on a person's face in a shot like this, from a filmed commercial by O'Reilly. But again, it's better to shoot a little too much footage rather than not enough. You can always shorten a scene in editing–but you can't make it longer.
[Courtesy Ellington and Co.]

Keep shooting as long as significant action is taking place. In this scene O'Reilly held the shot long enough for the boy and girl to meet and embrace. Don't cut the action off before it is completed–this will give you a choppy, unfinished effect.
[Courtesy Ellington and Co.]

With a complex moving subject such as a parade or procession, you can keep your camera running for many seconds and the scene will not become boring. Wind up your camera fully each time before you shoot so it doesn't run down before the action is completed.
[Courtesy St. John's University]

Panning the camera

One of the most widely used shooting techniques is *panning*–a slow, swinging movement of the camera from one side to the other. With a skillful use of pans, you can keep a moving procession in view, show the sweep of a landscape or the façade of a building without changing your position, or reveal the relationship between two people or objects. Panning can also help you to get across story points in a fresh and revealing way.

The first rule in panning is: *Always have a reason for a pan shot.* Just waving the camera back and forth without a valid reason will produce results that can only annoy your viewer. If the action is taking place within your field of view, it's usually better not to pan. Hold the camera steady and let the subject move.

There are three basic types of pan–the *action pan*, the *information pan*, and the *story-telling pan*.

Action pans

The action pan comes into play when your subject starts to move out of your line of sight and you must turn to follow the action. To take a familiar example, let's say you're covering a parade. As a first step, you choose a good medium-distance spot on the line of march, with the paraders approaching on your *left*, and prepare to make a panning shot. [A left-to-right pan is generally more pleasing for a viewer because we are used to reading from left to right.]

Start with a narrow, oblique angle that shows the marchers in three-quarter view at far left. Then–slowly, and in time with their own pace–follow them as they move across the camera's line of sight and pass out of the viewfinder at far right.

At this point you may be tempted to swing the camera back *while it is still running* and aim it at another group. This, however, would make your sequence jumpy. Instead, *stop shooting* and turn to far left again. Pick up another group of marchers and begin a second pan.

It's important to choose one direction of movement and stick with it. Don't show the marchers moving from left to right in one sequence and from right to left in the next.

Of course, in some situations–such as an ice-hockey game–the action may go back and forth and you'll have to pan with it. This kind of direction change is understandable to the viewer and won't cause the confusion that might result from seeing a line of marchers suddenly appear on the screen from a different direction.

Whenever you can, start your pan with the camera standing still and end it the same way. This helps make the action clear to the audience. For example, in covering a 100-yard dash at a track meet, you might hold for a few seconds as the contestants line up and break away. Then pan as they move down course and *hold again* at the finish line until the last man has passed. Keep shooting as long as the action is significant–you can cut later if the shot runs too long.

Another word of caution: Don't get too close to your subject, or the action may flash by the camera too quickly for your audience to see what is happening. However, you can pan with a telephoto lens if you *follow a moving subject* and keep him properly framed during the pan.

Information pans

You can sometimes pan when there is no motion at all. Here your purpose is to give information about a subject such as a landscape or a building too expansive for adequate coverage with the camera stationary.

Again–*pan with restraint and only for a specific purpose.* Study the area first. Could you get the information across with a series of shots from different positions? If so, this is probably wiser, since you can concentrate on the essentials and eliminate the rest. Panning shouldn't be used just to move from one point of interest to another.

Occasionally, however, only a pan will do the job. You might, for example, want to show the sweep of a mountain range, to move across a row of interesting faces, or to impart a feeling of motion to carved ornamental figures on an ancient building. These are all legitimate uses of the information pan.

Make sure your beginning and ending shots have a pleasing composition. Start your pan with a still shot four or five seconds long, then move slowly across the subject and come to rest at the end with another still shot. As in the action pan, it's usually best to follow a left-to-right path.

Often, you can add interest by introducing some foreground action –for example, a person strolling along a picturesque street or walking up the steps of a public building. Keep figures small and unobtrusive, so they don't distract from the background. Have the person or persons walk in the direction of the pan and "lead" the camera.

Story-telling pans

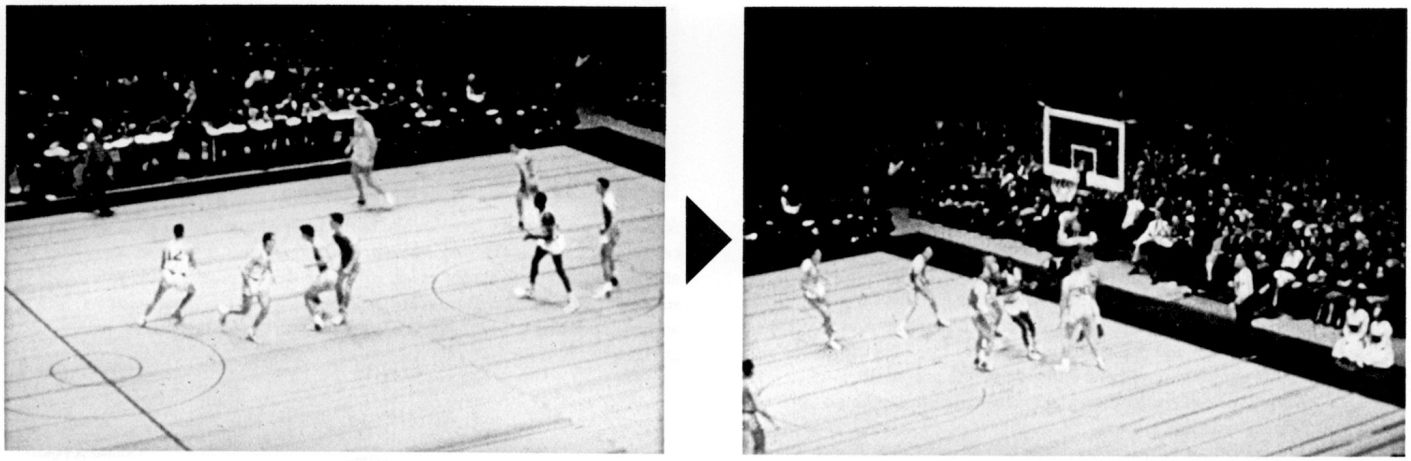
This type of pan shot is used to make a comment on the action or to further your story line in some way. It is sometimes called the *payoff pan*, because it begins with one subject and "pays off" by ending on another that is related to it. For example, you might show a baseball crashing through a window and then pan to some boys playing ball nearby. The pan links the two subjects and builds suspense as it goes along.

A useful payoff pan is the *character-reaction shot*, where you show a close-up of a person and then pan to an object he's looking at, or vice versa. In the above episode, for instance, you might begin with the boys' faces, showing their expressions of alarm, and *then* pan to the broken window.

The payoff pan is often used to introduce a note of surprise or drama. Let's say that you show those same boys running toward the camera after breaking the window. Suddenly they stop. You pan slowly from them to a shot of the irate homeowner, the baseball in his hand.

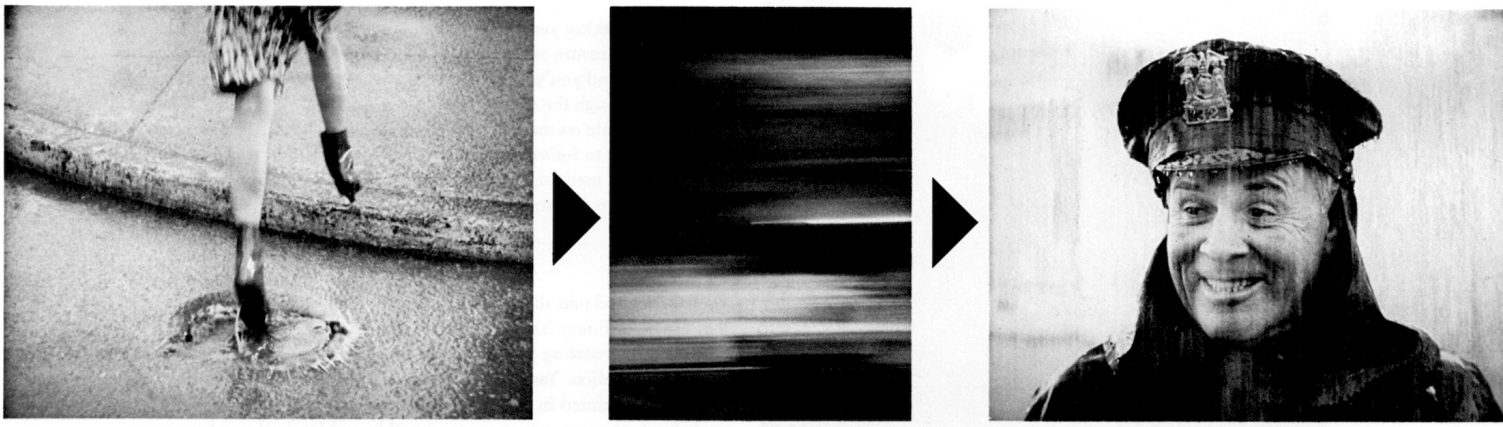
Used imaginatively, the story-telling pan shot can help you give your film impact and excitement.

Information pan: This usually is a long, slow pan to show a motionless subject in detail. For example, to give your viewers a good look at an interesting architectural subject like this modern house, you might begin at the left and smoothly pan to the right, as indicated by the arrow. [Photograph by Ezra Stoller for *Fortune* magazine, ©Time, Inc.]



Action pan: This is used to follow the action of a moving subject. Here, for example, are two frames from a pan by O'Reilly. He began the pan at the start of a play in a basketball game, followed the ball across the court, and stopped as a goal was scored on the opposite end.
[Courtesy St. John's University]

Story-telling pan: One way to use a pan shot for dramatic effect is to begin with a reaction–like this little girl's delighted expression– and then pan to the object that caused it–in this example, a toy in a store window.



Story-telling pan: Another way to use a story-telling pan is to begin with an action–here, a girl stepping out of a puddle–and then pan your camera to the reaction of a bystander–the appreciative policeman here. This is one case where you may want to pan very quickly [and show it by a blur, as in the middle panel]. This fast pan is often called a "swish" pan. If you don't get a fast enough "swish" at the time you shoot, make a swish later by swinging your camera very fast while it's running, then splice this in between your beginning and end shots.
[Courtesy Ellington and Co.]

How to make good pans

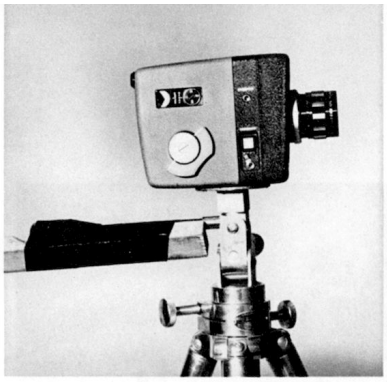
There's a knack to making a smooth, professional-looking pan shot. With a little practice, however, you can easily acquire this skill.

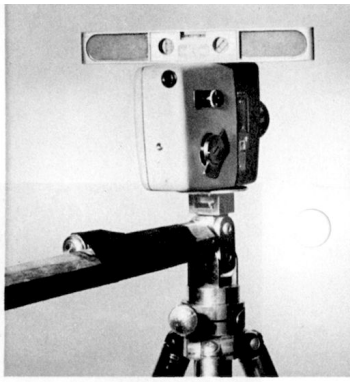
First, and most important–*pan slowly*. Panning always seems faster on the screen, so keep the camera movement as slow as you can, consistent with maintaining a smooth, steady turning motion. Of course, if you're following a moving subject in an action pan, you'll need to keep pace with the subject. It's a good idea not to stand too close; then you can follow the subject's movement without panning so fast you make your viewers dizzy. A good method to use with a stationary subject is to increase your frames per second when you pan–say from 16 to 24 fps. This will slow down the panning movement when the film is projected.

Keep your camera level throughout the pan shot, with no up-and-down wobbling motion.

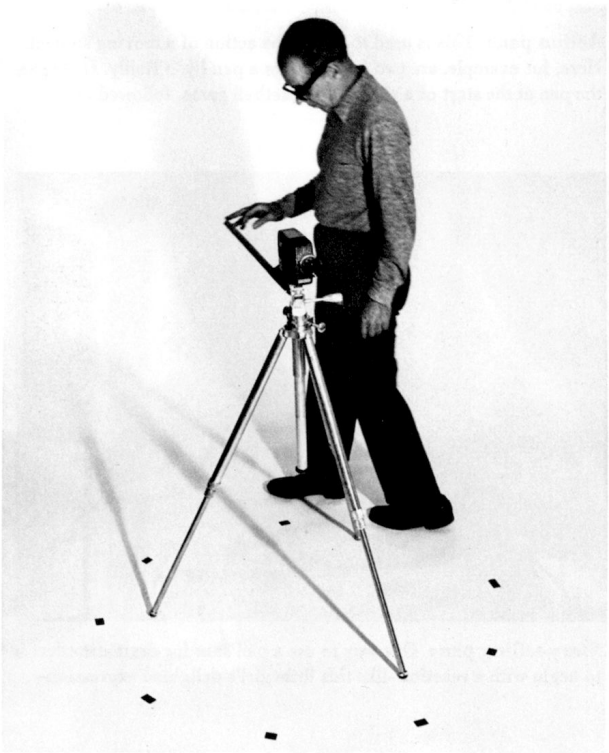
If there's time, rehearse your pan before you shoot. Know precisely where you want to begin and end. Find your beginning shot, then slowly pan the camera [without exposing film] until you reach the shot you want to close with. Now run through the pan again, bringing it to an end exactly at your closing shot. When you feel you can do this smoothly and accurately, make your actual shot. [Remember to wind your camera fully before you begin a pan–otherwise your motor may run down before you have completed it.]

Naturally, you'll get the smoothest, steadiest pans by using a tripod, but you can learn to make good pans with a hand-held camera, too. Both methods are demonstrated in the accompanying illustrations.

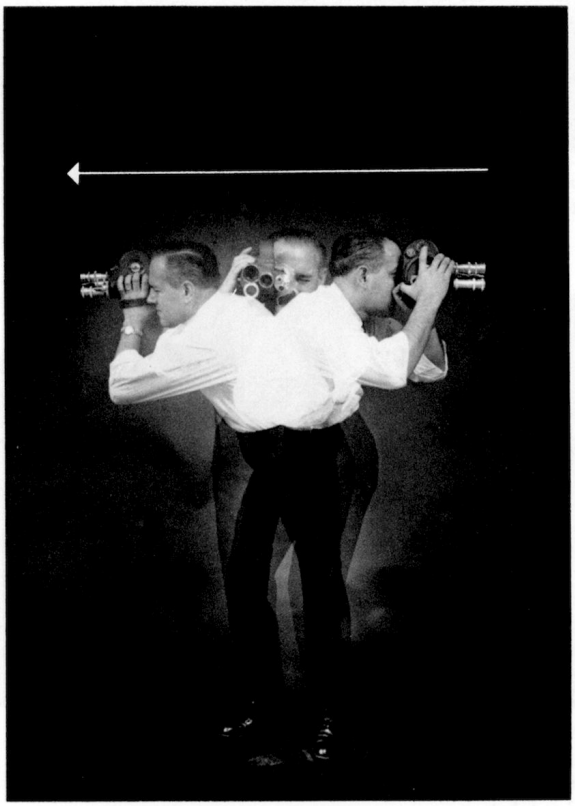




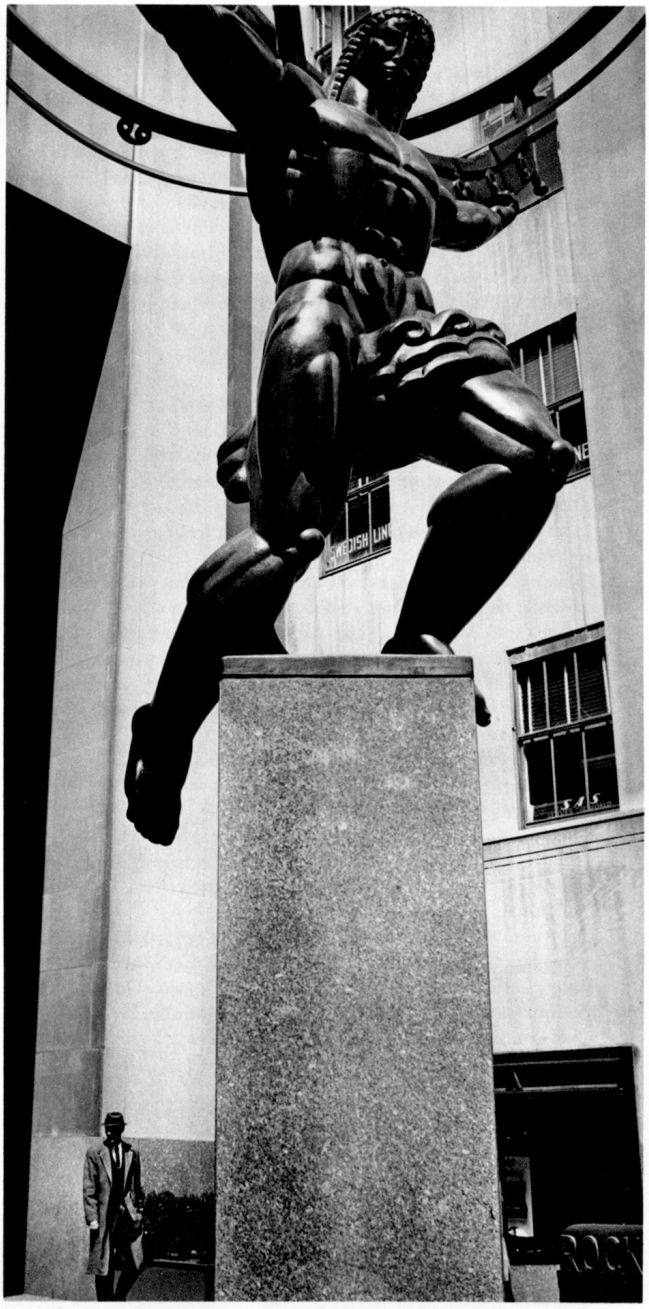
Attaching a temporary long handle to the lever of a tripod's pan head can enable you to make very smooth, controlled pans. A piece of wood attached with tape as shown at left will serve the purpose. Before you start your pan, be sure the camera is perfectly level. The most accurate way to check this is with a spirit level placed on top of the camera, as at right.



When making your pan shot, slowly walk around the camera, exerting steady pressure on the long handle. If you're shooting a *motionless* subject and you've rehearsed your pan carefully, you don't need to look through the camera viewfinder. Instead, watch your feet and concentrate on maintaining a smooth, even pace. Mark out the path you want to follow, as O'Reilly has done with bits of black tape here. With this method, you can make your pan as wide or as short as you like–up to a complete 360 degrees.



To make a good pan shot without a tripod, take a stance similar to that for an ordinary hand-held shot, then carry out the panning movement by *rotating your hips and shoulders* in a smooth, continuous motion. Your feet should remain firmly planted on the ground and pointed in the direction where your pan will end. You'll probably find you can turn more smoothly and freely if you keep your elbows slightly out from your body, as the photographer is doing here. A full 180-degree pan, as shown in this three-exposure demonstration picture, is the widest pan you should attempt without a tripod.



Here is a subject that would make a good tilt shot. You might begin by showing the man below the statue, then slowly tilt upward until you include the top of its head–thus emphasizing the height of the statue. Just as with a pan, it's often a good idea to hold your shot a little at the end of a tilt, to give your viewers a rest and let them absorb the subject before shifting to something else.
[Photograph by Arthur d'Arazien]

Tilting your camera

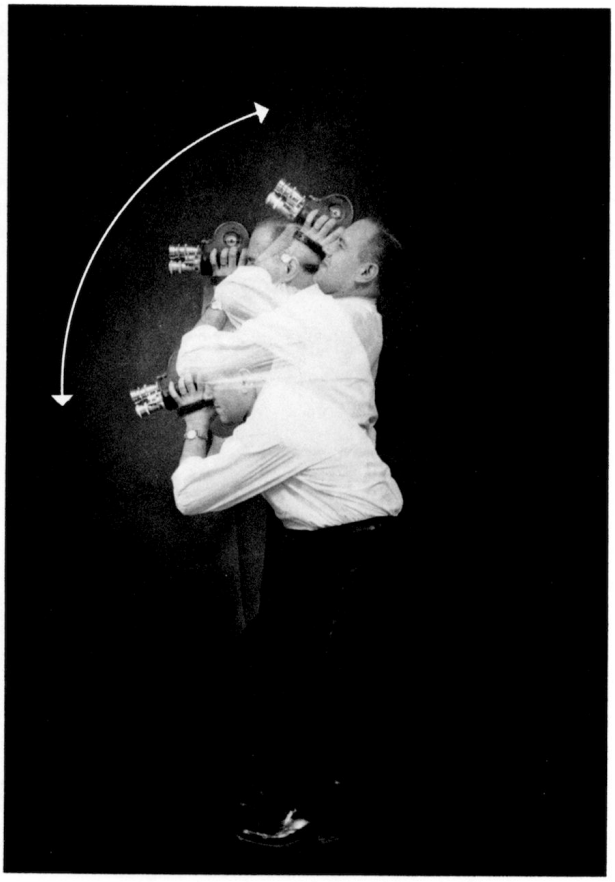
Swinging your camera in a vertical direction, down to up or up to down, is called *tilting*. You'll find it useful when you want to show all of a tall subject such as a mountain, church steeple, or high building in one shot, or follow a subject moving in a vertical direction, such as a high diver or a parachute jumper.

Just about everything we've said about panning applies to tilting, too. [In fact, you might define a tilt as a pan in a vertical direction.] As with panning, tilting shouldn't be overdone. Be sure there's a good reason for using a tilt. If you can get your point across best in a series of separate shots at different angles, then that's the best thing to do.

Tilt slowly and smoothly, of course. And, just as with panning, make certain you know where you want to start and where you want to end. Any hesitation in a tilt will be emphasized when the film is projected.

Usually, the most logical way to tilt is to begin at the bottom of your subject and move up because this is the way we naturally look at a tall subject. However, sometimes you might tell your story better by beginning high and moving down. For example, you might show a cathedral tower with bells ringing and birds flying away in alarm, then slowly pan down to the entrance, where people are gathering for the church service. With an action subject, of course, the direction of your tilt will be dictated by the subject's motion.

When following the motion of some subjects–a skier making a traverse run down a slope or an airplane taking off, for instance–you may need to combine a tilt and pan in a diagonal movement.



In making a down-to-up tilt with the camera hand-held, start in a crouching position for the beginning of the shot and gradually rise as you swing the camera upward. For an up-to-down tilt, do just the reverse–start your tilt in a standing position and gradually bend your knees and body as you lower the camera.

Dolly and zoom shots

A dolly shot is a movement of the camera toward or away from the subject or center of action while the camera is running. By dollying, you can film a complete sequence of action without breaking it up into separate shots. Thus, you give your audience a fresh viewpoint or a change in emphasis within the scene itself. At the same time, you contribute movement to what might otherwise be a static scene.

Your action, for example, might take place on the outdoor patio of a home, where two people are seated. You might begin with a long shot from the far end of the patio to establish the location. Then you might dolly *in* to a medium shot of the figures and finally to a close-up of their faces.

Or you might reverse the process. Say one of your characters is reading a book that is significant to the story you want to tell. You could begin with a close-up of the book to call attention to its title and then dolly *out* to a medium shot that introduces the people and their surroundings.

Just as with a pan or tilt, a dolly shot must be accomplished smoothly and evenly, so the viewer concentrates on the central action and isn't overly conscious that the camera is moving. Dolly slowly and avoid abrupt starts and stops. Newsreel men sometimes make dolly shots with a hand-held camera while following a subject on foot, but it's practically impossible to hold the camera steady under these conditions. Therefore, use some kind of a mobile platform as a camera support whenever one is available.

You can make a satisfactory dolly for home movies with a cart, baby carriage, child's wagon, or almost any wheeled vehicle [preferably one with inflatable rubber tires to absorb road bumps]. Cut a section of plywood for the bed of the vehicle, or bolt a wooden platform securely to its sides. Then drill holes to hold the tripod legs securely.

The best arrangement is a two-man dolly, with the cameraman riding and an assistant pushing or pulling from behind, out of camera range. However, you can operate a homemade dolly yourself. Grasp the camera with one hand and one tripod leg with the other. Walk along beside the dolly, pushing ahead or pulling back as required. Always exert pressure *on the camera and tripod leg*, not on the dolly itself.

The surface your dolly travels on should be as smooth and even as you can make it. Soft tires are a big help in absorbing small bumps. If the tires are inflatable, let enough air out to bring the pressure down to about half what it normally would be. When the surface is rough you may have to provide a dolly track. If you're working in a fairly limited area, you can lay down sections of plywood or masonite. Both are available from lumberyards in 4x8-foot sheets. Place the sheets end to end in the shooting area, tape the joints, and, where necessary, shim them underneath with small pieces of wood to get them perfectly level. Now you have a smooth path for your dolly to follow.

When you're on location at an industrial plant, business office, school building, etc., look around for on-the-spot dollies that you can put to use. Often these places have food carts or materials-handling equipment that will serve well.

The zoom lens

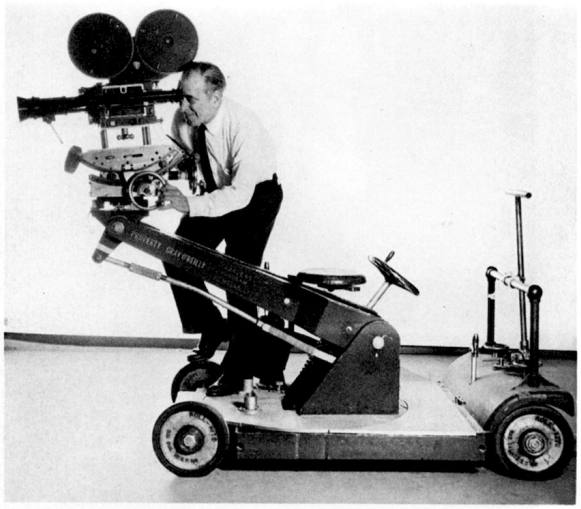
If your camera is equipped with a zoom lens, you have a good substitute for a dolly. In a fixed camera position, you can zoom in or zoom out while the camera is running, giving the viewer the effect of moving closer to or further away from the subject. This is particularly useful when you're in a confined shooting position, such as a grandstand seat at a sporting event, and can't readily move toward or away from your subject.

The zoom lens is so convenient and versatile that you have to be constantly on guard against abusing the freedom it allows. The tendency is to swing the adjustment lever rapidly and make a fast straight-in or straight-out zoom. However, this will have a jolting effect on your viewer. Occasionally, *very* occasionally, that may be just what you want–for example, to move in swiftly for a close look at a subject's expression or reaction.

As a general rule, however, zoom slowly. Ease into your subject, don't pounce on it. Use the zoom much as you would a dolly, leading your viewer gradually into the scene.

Remember, too, that you can use the variable focal lengths of the zoom lens without running the zoom. You might take a shot at a wide-angle setting, stop shooting, change to a telephoto effect, and make a second shot.

If you're working at fairly close range, you can sometimes simulate a zoom lens with a normal camera. Here's how. Get your feet firmly planted and lean back as far as possible. As you start shooting, bring the upper part of your body forward and continue the forward movement until your camera is close to the subject. You are then using your body as a substitute for a dolly or zoom.

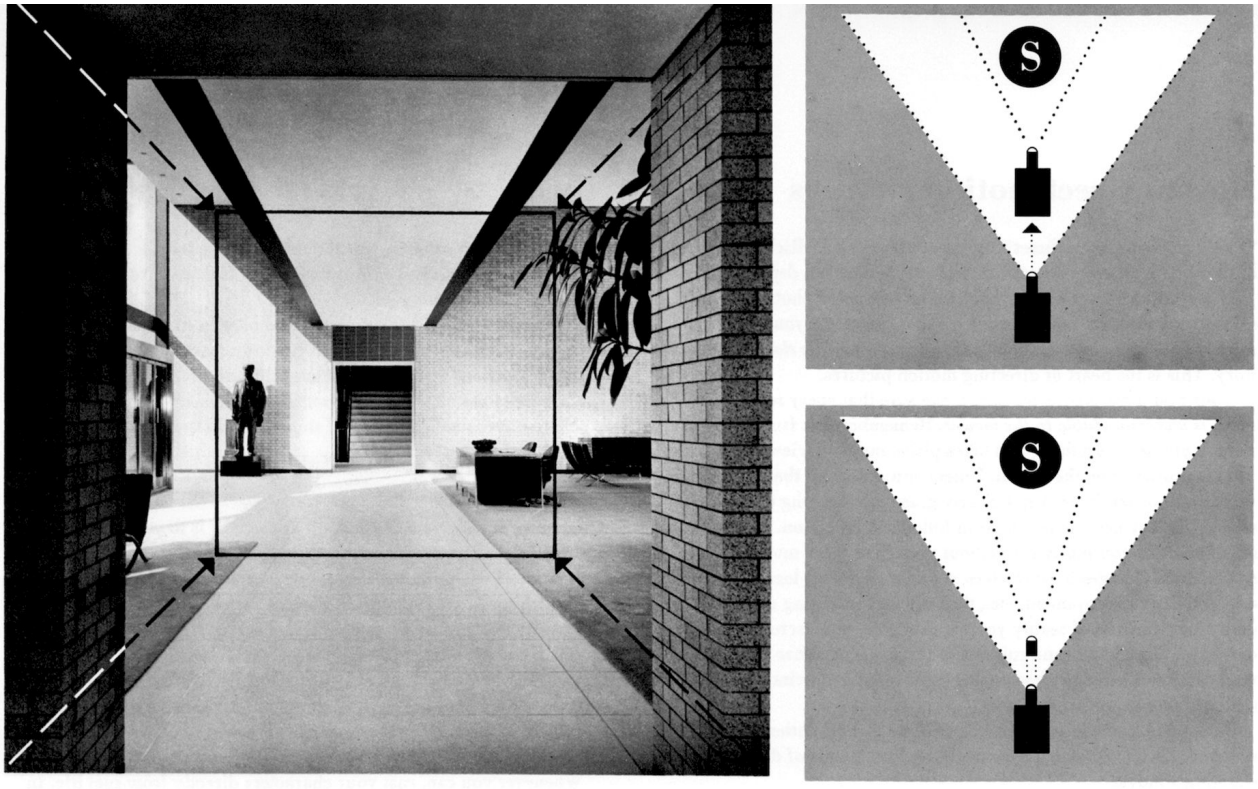


Here's a 35-mm camera mounted on a professional dolly. In amateur shooting, a baby carriage, child's wagon, or an automobile can be used for the same purpose. A station wagon is good if you open the tailgate and shoot out the back while the car is slowly backed toward the subject or driven away.

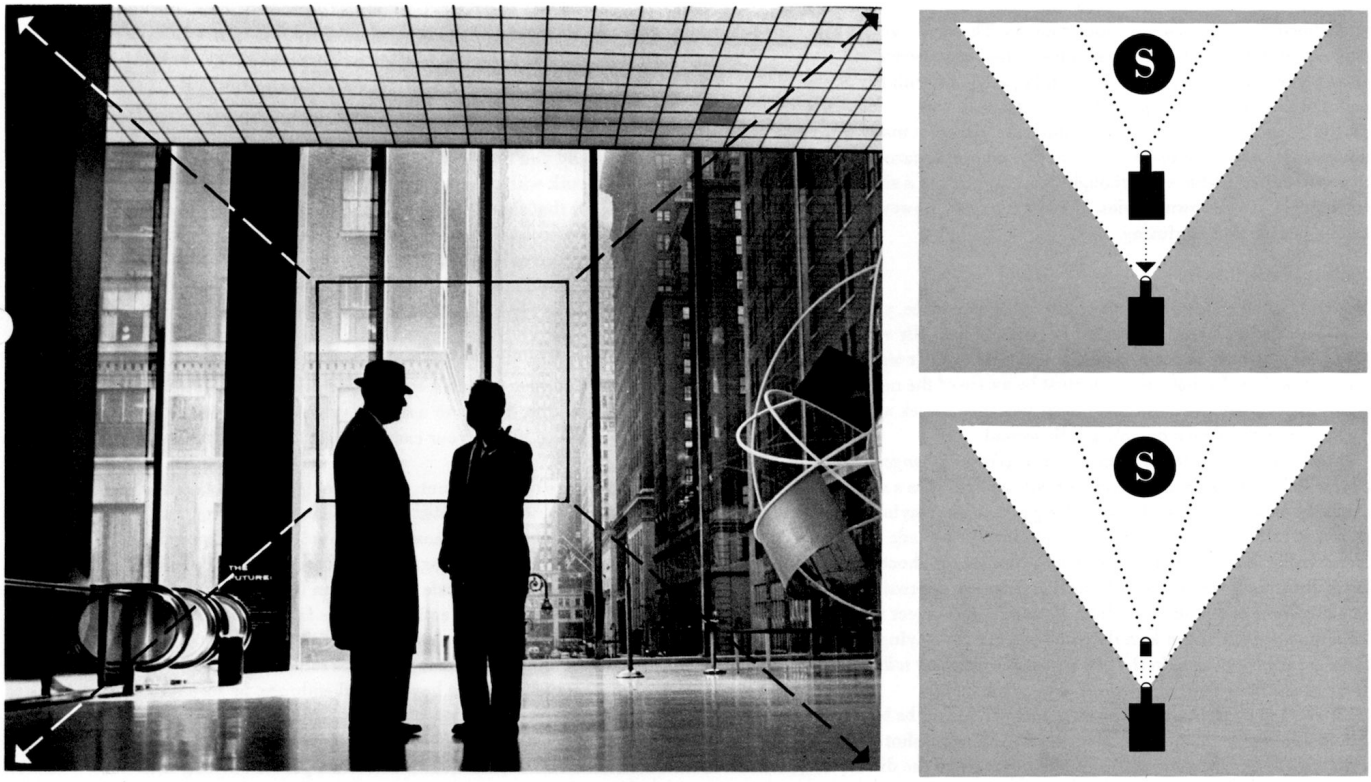
Start zoom

End zoom

A piece of tape on your lens, marked with where you want a zoom to begin and end, can help greatly in rehearsed zoom shots. First determine where you want to start your zoom and mark this position. Then zoom in or out until you find where you want to end the zoom, and mark that position also. When you shoot, these guide marks enable you to start and end the zoom at precisely the right point.



Dolly in or zoom in: This gives the viewer the impression of moving in closer to the subject. It can be achieved by moving the camera closer, as in the top diagram, or by extending a zoom lens, as in the bottom diagram. To increase the sense of movement, begin your shot with the subject framed [by a doorway in this scene], and move or zoom in *through the frame*. When zooming in, perspective doesn't change, as in a dolly shot, because the camera position remains the same. Even so, a zoom shot can convey a strong feeling of motion.
[Photograph by Ezra Stoller for H. J. Heinz Co.]



Dolly out or zoom out: This is just the reverse of what we demonstrated above. Here you begin with a close-up of your subject–a head-and-shoulders shot of the two men in this example–and then gradually pull back the camera or shorten the zoom lens until you get a medium or medium long shot that shows the surroundings. Zoom and dolly shots can add action to an otherwise static subject, but don't overdo them. They should be used only when they help your story.
[Photograph by Arthur d'Arazien]

How to direct motion pictures

"Photography is more direction than anything else," Richard Avedon has said. The ultimate success of your movie does not depend only on your getting clear, properly exposed, well-composed shots, necessary as these are. It depends even more on *how effectively you plan your sequences and join them together into a unified whole that tells your story*. This is the heart of directing motion pictures.

Your first duty as director is to make sure that *every scene you shoot is understandable to the viewer*. Remember that from behind the camera you see everything that takes place, but your viewer sees only what is projected on the screen. Unless you show him the right images in the right order, he may not clearly grasp the meaning of what he sees, or he may become confused in following the action. Also, you must maintain continuity throughout your film–there must be no *unexplained* changes in characters, costume, lighting, location, time of day, direction of movement, etc., that will be distracting or tend to destroy the illusion of reality you are creating on the screen. Finally, of course, direction means guiding your actors [whether members of your family or hired professionals] to give you a convincing, understandable performance.

First, let's take a look at each of these important duties of a director. Then we'll examine some of the finer points of directing and shooting a movie.

Show necessary entrances and exits

Don't introduce a new character into a scene without showing how he got there. Let's say you are shooting a film of two children at play indoors. Suddenly their mother appears beside them. Where did she come from? *You* saw her physically enter the room–but your viewers won't unless you show them. To introduce the mother you might pull back for a medium long shot that includes the door, and hold the shot while the door opens and the mother enters. Then you can cut to a close-up of the mother with the children, and her presence will be clearly understandable. Later, you might pan along with her as she walks to the door again, opens it, and exits.

You've probably seen entrances and exits like these many times in professional movies, handled so smoothly you were scarcely aware of them. With just a little extra thought you can achieve a similar smoothness in your own movies. If you omit them, however, the effect can be jarring and confusing.

Maintain continuity

If you shoot an entire film at one time and in one place, you automatically maintain continuity. But often, especially with a longer film, you may have to shoot it over a period of days or weeks, a few scenes at a time. In that case, you must be aware of the need for continuity, bearing in mind that scenes you shot a week apart may be separated on the screen by only a split second.

The basic rule is: *Don't show any unexplained changes in time of day, weather, location, characters, or costume.* To take a simple example, let's say you're photographing somebody playing tennis, and a sudden rainstorm interrupts your shooting. You decide to return another day to complete the film. When you resume shooting, choose a time of day and weather conditions that give you approximately the same lighting as in your first shots. Be sure your subject wears the same costume and plays with the same partner. By paying attention to these details, you can join the two sequences and *they will seem to take place at the same time when projected.*

If you fail to maintain continuity, the illusion will be broken. If the sun is shining brightly in one shot and the following shot was taken on a dull, overcast day, your audience will be aware of the discrepancy. If your subject is wearing a polo shirt in one scene and a sweater in the next, the effect will be incongruous.

Also, don't shift backgrounds or location without making this self-explanatory. For instance, you shouldn't change from a scene on the front lawn to one in the backyard without a transition shot to explain the shift.

When you finish a day's shooting and plan to continue with the same scene later, it's a good idea to jot down notes on the characters, clothing, location, weather conditions, time of day, and other details you'll want to match when you resume shooting. Keep a record of the exposure-meter reading and the *f* stop you used to help you match lighting and exposure, too.

Choosing and handling actors

Another important part of your job as director is to get a natural, convincing performance from the people in your film. Much will depend on whether you use professional or amateur actors.

Professionals are trained to assume a variety of parts and portray almost any expression or emotion called for. Very few amateurs, however, can act anyone except themselves. When they try to do so, they usually overact. So don't attempt the impossible. If you're working with amateurs, let them do something that comes naturally and easily to them. Once they become absorbed in *doing* rather than *acting*, you'll probably get a believable, lifelike performance.

Whenever you can, cast your characters directly from real life. In making an industrial movie, for example, choose people who are skilled in the operations you want to show. If it's assembling the parts of a machine, for example, have an assembly worker go through the actual motions, just as he does every day. He'll soon become so intent on what he's doing that he will forget the camera is running. Some of the most successful professional documentary films use nonprofessionals who simply act themselves.

Usually the best way to get spontaneous acting is to explain to your actors what you want them to do, then let them work out the details in their own way. For example, don't just say, "Now, look angry in this scene." Explain the action and give the actor the reasons for the emotion you want him to display: "You've just dozed off for a Sunday afternoon nap when a baseball crashes through your window. You see the destruction and you're wild with anger. You rush to the door."

If you must work with an actor who is wooden and self-conscious, use medium shots that show him doing something but do not give too clear a view of his expression. Close-ups of hands or feet sometimes can get across an idea or emotion without demanding much dramatic skill. For instance, you might ask your actor to twiddle his thumbs to indicate boredom, or tap his foot to show impatience.

The importance of rehearsing

It's a good idea to rehearse each scene once or twice before you shoot. Practice any pans, tilts, dollies, or zooms to make sure you start and stop in the right place. Check your camera angle to see that the action is clearly shown.

If your actors are to move about, make sure they know where to go, where to make turns, where to enter and exit, etc. Give any helpful coaching you can to make their movements, gestures, and expressions more natural. Just as in still photography, you may require them to exaggerate, to act things out a little "larger than life." However, don't overdo it to the point where the acting becomes false or silly. At the same time, the action should be clear and decisive so your viewers will get the message. If a man bangs his fist on the table in anger, he should really slam the table. If a boy and girl embrace, be sure they do it with warmth.

Sometimes, of course, spontaneous action is far better than rehearsed action. This is particularly true when you're working with young children. Children are natural actors but they must be left pretty much to their own devices. Get them started on a project or game that interests them and then let things take their course.

Keep the direction of movement consistent

Avoid confusing reversals in the direction of a subject's movement. Abrupt, unexplained changes from right to left or left to right can destroy continuity. For a simple example, see the three frames above. If your subject is moving from left to right as in the first and you want to change camera position for a new shot, don't change to the opposite side of the subject or the screen image will suddenly be moving right to left, as in the second frame. Stay on the same side, so the movement continues left to right, as in the last shot.

Like all rules, this one has exceptions. You can show reversed action *if the reason for the change is self-evident.* For instance, if you were shooting a man teaching his dog to retrieve, you might show him throwing a ball and the dog running after it, left to right. If you then show the dog picking up the ball, turning around, and running back right to left, the action is clear.

Using head-on and tail-out shots

Naturally, you don't always need to photograph a moving subject from the side. For variety you might also shoot the subject head on, or nearly head on, moving toward the camera, or from behind, moving away from the camera [called a *tail-out* shot]. You can cut from one to the other without a jarring effect, and you also can use a head-on or tail-out shot as a transition if you want to change the direction of movement across the screen. For example, you might follow this sequence: [1] subject moving left to right, [2] subject moving toward camera, and [3] subject moving right to left. This brings about the change of direction smoothly and gradually, and will be accepted by the audience without any sense of a break in the continuity.
[Photographs courtesy Ellington and Co.]

Head-on shot

Tail-out shot

Matching action

Still another thing to be aware of is to *match the action* when you cut from one shot to another of the same subject. This means tying the end of one action shot to the beginning of the next so that the movement *appears* to be continuous, as demonstrated in the three shots below. For example, if your subject is walking in the first shot, he shouldn't be running in the shot that immediately follows. If a tennis player is holding his racquet overhead in a medium or long shot, he should have it in the same position if you cut to a close-up.

When you can control the action, as in a rehearsed scene, matching isn't too difficult. You simply have the subject repeat a portion of the movement so that the action in the first shot slightly overlaps that in the second. When you edit the film you find the point where the movements are identical, or nearly so, and splice these key frames together, discarding everything that comes *after* the key frame in the first shot and *before* the key frame in the next one. In movie language, the shots now "cut together." There won't be any annoying or distracting jump when they run on the screen.

Naturally, when you don't have control over the subject, matching the action is more difficult. If the subject's movements follow a repeated pattern, you can wait until a gesture or action is repeated and get your overlap that way. Even if you don't get a perfect match the difference may be slight enough to go unnoticed. In cases where it's impossible to match action, you usually need some kind of a transition shot to bridge the gap. We'll demonstrate how to achieve this later.

In this frame at the end of a medium long shot, the girl has just started to open the mailbox.

Wrong: In this following close-up the mailbox is open. However, because we didn't show the girl opening the box, the effect will be jumpy on the screen.

Right: Match the action, as we did here. For smooth continuity, the subject's position in the first frame of your new shot should be the same as it was in the last frame of the preceding one.

Directing [*continued*]

The cutaway

This is a most useful and important kind of shot. It shows some detail or action that's related to your main action but secondary to it. For example, if you were photographing a basketball game, a typical cutaway would be a shot of spectators reacting with joy or chagrin to some action on the court. If you were shooting a sequence of somebody water-skiing, a good cutaway would be a close-up of a hand steering the motorboat.

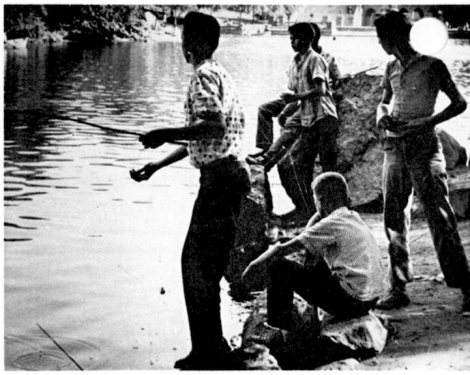
A cutaway may serve two purposes: [1] It can bridge the gap between two shots that don't exactly match, and [2] it can enrich your story by pointing up some interesting sidelight to the main event. The cutaway momentarily diverts your viewer's attention from the main action. Most viewers won't keep in mind more than one scene prior to the one they're looking at. Therefore, when you cut away, you prepare them to accept a break in continuity. See the three pictures by Alfred Eisenstaedt for an example of how a cutaway can be used.

Cutaways often are called "safety shots" because they give you a way to smooth out the continuity of your film when you can't match the action of two sequences or must find a graceful way to get from one sequence to another. Look for good cutaways whenever you film an important action. They may prove invaluable when you edit your film, and you can always delete them if they're not needed.

If you've been wondering how you can possibly plan things so you can shoot cutaway shots in the right sequence, don't worry about this. It usually doesn't matter when you shoot them–it might be before, during, or after the main action. During editing, which we cover a little later, you can remove cutaways from your original footage, shorten them if you wish, and then splice them back into your film at whatever point they will do the most good.

Let's say you are shooting a group of boys fishing. You might begin with a medium long shot like this that shows the boys and establishes the setting. Problem: How can you move in for a closer view without running the risk of having a noticeable gap in the action if they change their position in the meantime?

A good solution is to find a cutaway shot–here it's two other boys balancing on a nearby rock. [You might decide to pan over to them, to clearly show their relationship in space to the first group of boys.]



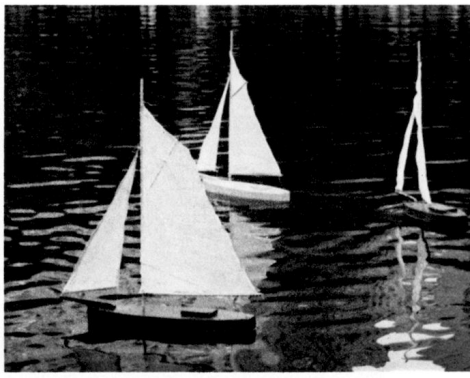
Now you can move in for your medium shot of the fishermen and shoot. Because the viewer's interest has temporarily been diverted by the cutaway, he won't be conscious of any break in continuity even if the figures now are in different positions. [Courtesy *Life* magazine, ©Time, Inc.]

The cut-in

A cut-in is simply a close-up or extreme close-up you use to call the viewer's attention to something important in a scene. Unlike the cutaway, the cut-in brings us close to a *central* detail–not to a related secondary detail. In the visual language of a motion-picture film, it serves somewhat the same purpose as underlining a key word or phrase in a passage of writing. It is sometimes called an *insert*. [For a good simple example, see the two accompanying pictures by Eisenstaedt.]

To make a cut-in, you might move the camera closer, change to a lens of longer focal length, or zoom in if you have a zoom lens. Be sure you match the action. Because you're focusing your viewer's attention on a detail, any gap or jump in the action will be very evident.

Here's a long shot of toy sailboats in Central Park.



The cut-in shot brings us close to one of the boats, emphasizing this interesting detail in the scene.
[Courtesy *Life* magazine, ©Time, Inc.]

Other important types of shots

In directing and shooting a motion picture you often can make good use of the following four types of shots: *reestablishing shots, bridge shots, reverse-angle shots,* and *contrast shots.*

Reestablishing shots: We've talked about the long or medium shot that establishes a scene and gives the viewer the general setting before you move in for close-ups. In many situations, you'll want to *reestablish* the scene by pulling back after a close-up and including more of the setting to remind your viewer where he is and what is going on. A good general rule is *to shoot a reestablishing shot any time you introduce something new in a scene.* For example, you might show an office with a man seated at a desk–medium shot to close-up. Now another person enters the room. You should reestablish the scene as he crosses the room. Then you can go back to tight close-ups again.

Bridge shots: Often, simple close-ups or flashes of action will effectively link two sequences that are different in mood or tempo. For instance, you might want to go from a fast-moving skiing sequence to a quiet scene inside the ski lodge. A bridge shot of a fireplace or a pot of coffee on the stove will prepare your audience for the shift.

You can make bridge shots at almost any time and cut them into the right position when you edit. They accomplish in visual terms what a new chapter heading does in a novel.

Reverse-angle shots: To make a reverse-angle shot you simply move the camera around so that it is facing in the opposite direction from your first shot. Let's say you're photographing a child on a swing. You might begin with a rear view that shows someone pushing the child until the swing reaches the top of its arc and the subject is silhouetted against the sky. Next, you shift around to the front, so that the child is moving *toward* the camera. By reversing the angle you've given your audience a change of pace and more complete information.

Reverse-angle shots are particularly useful with sound pictures, when you're following a conversation between two people. You shoot over the shoulder of one person, with the other facing the camera as he talks. When the conversation shifts, you just reverse the procedure, so that the second person is in full view. This is sometimes called *cross-cutting* and is frequently used in news interviews and screen dramas.

Contrast shots: Occasionally you may find it more interesting to make a sharp contrast between scenes, rather than a gradual transition for dramatic effect. Here, you deliberately give your audience a visual jolt to emphasize a story point. A sudden change from your snow-covered home to a tropical beach, for example, would say a good deal in a few frames about your winter vacation trip.

Sometimes the contrast shot can be used for humorous effect–for example, you might show a skater confidently starting out across a pond and follow with a close-up of him sprawled on the ice.

Contrast shots quicken the pace of a film and drive home the visual message. When you use this kind of transition, however, be sure that it *does* make a valid story point. Otherwise, a bridge shot is better.

The following sequence is taken from a documentary film by O'Reilly about a university. Notice how a basically static subject–a group of people talking in a room–is given movement and visual variety by the use of different camera angles, distances, and types of shots.

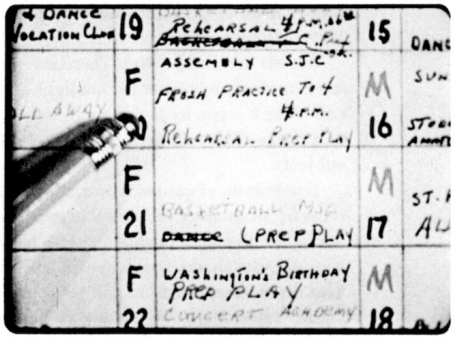
Bridge shot: A close-up of a sign or other identifying detail often can give you a good way to introduce the viewer to a new scene.

Establishing shot: An overall view shows the office, the dean of the university, and students he is talking to. It sets the stage and introduces the characters.

Close-up: Showing the dean in a close-up as he is talking focuses attention on him as the key character in this sequence. What he does provides the main action.

Cutaway: A change of camera angle gives a close-up of one of the students taking part in the discussion.

Reestablishing shot: Too many close-ups in sequence may confuse the viewer. It's time to pull back to a medium shot that shows more of the room. Now we can introduce some new action–having the dean get up and point to a wall chart.



Cut-in: A cut to an extreme close-up brings the viewer's attention to a section of the chart to which the dean is pointing.
[All photographs courtesy St. John's University]

Lighting for movies

The basic principles of lighting for movies are the same as lighting for stills. We won't discuss them here because they are fully covered in the lessons on outdoor and indoor lighting and color photography, and elsewhere throughout your Course. Instead, we'll concentrate on the additional points you should know when you light a movie scene.

Outdoor subjects

With today's broad range of movie films, you can make good outdoor movie shots under widely varying light conditions–at dawn, midday, afternoon, or even at night, when building and street lights often provide spectacular effects.

Try to select the kind of natural light that best carries out the idea and purpose of each scene. If you're working close to your subject you might choose the soft, diffused light of an overcast day when you won't be bothered by harsh shadows on faces. For long shots and scenic panoramas, you might prefer early morning, when the slanting rays of the sun define faraway details. Perhaps a rain-swept street at dusk with the light reflecting from the wet pavement would best carry out the mood of a particular scene.

Study the light with your shooting script in mind and, whenever it's possible to do so, set up a work schedule to make the most of shifting light conditions. Often, this will mean waiting it out until the light strikes a building in just the right way, or until you get exactly the cloud-studded sky you need.

While you can use a wide variety of lighting effects in your movie for story-telling purposes, remember the advice about being consistent *within a scene or episode*. Check the sun before you start shooting and make sure it's not going to be covered by a cloud in the middle of your shot. Remember, too, that shadows lengthen and change shape in a few hours. If this affects the mood or essential information in your scene, you may have to stop shooting, then pick up again at the same time on another day.

When cutting from one shot to another, be sure the light is approximately the same as in your establishing shot. If you go from a brightly lit medium shot to a dimly lit close-up, for example, the effect will be confusing to the viewer. You'll also have to watch for uneven exposure when a subject moves from sunlight into shadow while the camera is running. As far as possible, coach your subjects to stay within an evenly lighted area, defined by trees, buildings, or other markers.

Professional movie companies sometimes use floods to fill in dark areas on outdoor locations. However, this usually calls for elaborate equipment, including a portable power source. Often, you can use reflectors to accomplish much the same result. Take advantage of natural reflectors such as white walls, sand, water, and snow by staging your scenes where they will benefit from the reflected light.

In close-ups, particularly when the light is coming from behind your actors, you can reduce sharp light-and-shadow contrast by setting up white cardboard reflectors as we recommended for still work. Mount them on portable stands or have an assistant hold them so that they redirect the light on your subjects' faces and soften the shadows.

Scrims are also helpful. These are simply large diffusion screens used outdoors to scatter the sunlight and reduce glaring contrast. You can make a scrim by tacking a 6x6-foot piece of cheesecloth or netting to a frame. Place the scrim so it intercepts the sunlight falling on your subjects.

Sometimes, of course, you may want to use a shift from light to dark for dramatic effect. Or you may decide to place one person in sunlight and others in shadow or to have the same person move from sunlight into shade. It all depends on what you're trying to say in your film. In movies, just as in still photographs, light and shadow are creative elements you employ to get across your story ideas.

Simple indoor lighting

When you move indoors, your main problem is to raise the level of illumination throughout the area where your action takes place so that your subjects can move around freely during a scene without loss of important detail. This will usually mean a greater use of floods and spots than in still photography, where you could rely on flash, time exposures, and faster film to help out.

By planning carefully and following a few commonsense rules you can overcome the problem and still avoid a major investment in new equipment.

First, *choose your location with lighting in mind.* Confine your shooting to an area that you can adequately cover with the lighting you have. A room with light-colored reflective surfaces is ideal–one large enough to allow your actors to move about freely, but not so large that you must light up more space than you need.

Second, *keep your set as simple and uncluttered as possible.* This will minimize the risk of hot spots and multiple shadows.

Third, *use window light as a supplementary source whenever you can.* But avoid direct sunlight, which casts harsh shadows on walls and floors.

Fourth, *build your shooting script around medium shots and close-ups,* where you can control the lighting more precisely. Leave the long shots of large interiors to the professional companies with powerful lighting units and the staffs to handle them. [We'll have more to say about professional movie-lighting equipment and methods in the next lesson.]

Fifth, *use the same care and imagination in lighting a person for a movie as you would for a still portrait.* The same basic principles of lighting apply.

Making the most of your equipment

Some amateurs rely almost entirely on the *movie barlight*–usually four medium-beam reflector floods mounted in a row on a bar to which the camera also is fastened. You set the exposure according to subject distance and shoot.

We do not recommend using a barlight in this way because its flat frontlighting gives you little opportunity to bring out modeling and dimension in your subjects. Also, the glare of four head-on lights is often disturbing to the people in the scene and causes turned-away heads and unhappy, squinting expressions.

If you already have a barlight, you can use it more creatively this way. Remove the flood unit from the camera and place it on a table, with the bulbs aimed at the ceiling or wall. Now you have a strong bouncelight that will throw a soft, diffused glow over the area.

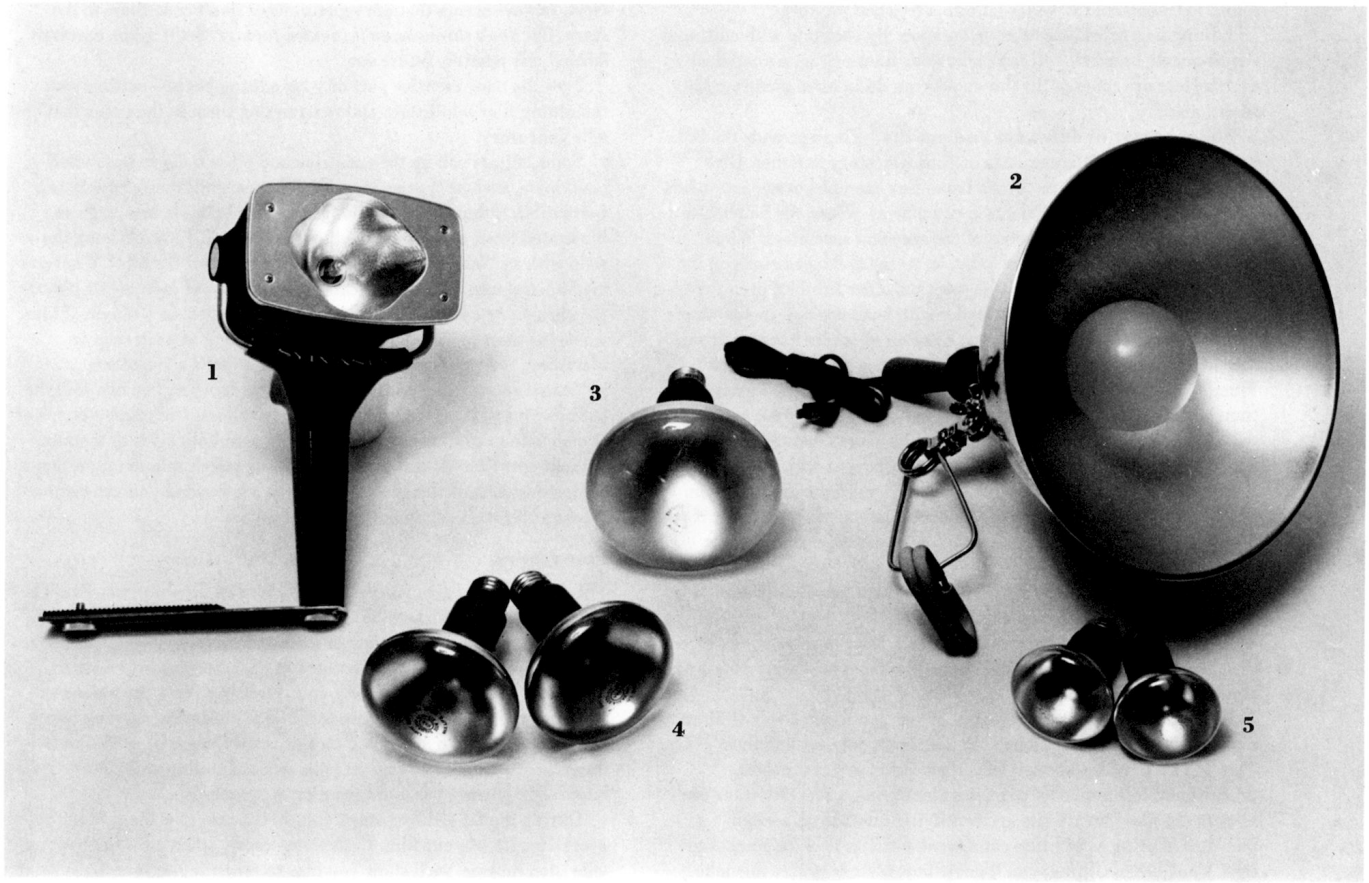
A more versatile single light for indoor shooting is the *quartz-iodine lighting unit* which provides almost as much intensity in a smaller, handier unit. The quartz-iodine light burns a combination of inert gas and iodine in a quartz envelope. It maintains constant color temperature–an advantage in color shooting–and has a longer life than floods. Also available are self-contained battery-powered units that you can take into the field. However, such a unit must be periodically recharged by plugging it into an ordinary household electrical outlet.

The photofloods you use for still photography, or the smaller, medium-beam type often employed in movie photography [*see illustration*] will serve most of your indoor lighting needs. With four No. 2 photofloods in reflectors you will have adequate light for most movie requirements. Place the lights high, so that your actors can move around at will without blocking the illumination, and fix them securely on stands or clamp them to furniture to guard against wavering light during a scene.

Position your floods much as you would in lighting an interior for a medium shot or portrait in still work. You'll need a *main* or *key* light at an angle to the subject, a *fill* light closer to the camera to bring out details in the shadow areas, and a *backlight* to separate your subject from the background. Often, you will want to direct the fourth light on the wall behind your subject to kill background shadows. Of course, you can rearrange the lights for high- or low-key effects, depending on the mood you want to create.

One or more *spots* make a very useful addition to the basic movie lighting kit. With a 500- or 250-watt spot you can concentrate beams on small areas, emphasize facial details, and make interesting light-and-dark contrasts. As in still photography, a good general lighting plan is to use your floods for overall illumination of the shooting area and the spots for placing accent where you need it. The accessories used in still photography can also be put to work on your movie set. *Barndoor* flaps to control the width of the light beam, *diffusion screens* to soften directional light, and *reflectors* to brighten shadow areas are particularly useful.

A word of caution on indoor lighting: Because of the extra lights sometimes required, you may put a heavy strain on house current. Check the maximum wattage your circuits will take and plan your lighting to stay within safe limits. As suggested in the lesson on indoor lighting, it may be a good idea to use extension cords to put some of your lamps on different circuits. An advantage of small reflector floods such as the 200-watt DAN or the 300-watt BEP is that you can put more of them on a circuit without danger of blowing a fuse. [*Never* replace an existing fuse with another of higher wattage. You run the risk of overheating the wiring and starting a fire if you do.]



Simple movie lighting equipment

1 Quartz-iodine lights are a good source of illumination for movies. A number of models are on the market. Some are designed for use with an extension cord plugged into a household circuit; others, like the one shown here, are battery operated and completely portable. With this model, for example, the fully charged battery will run the light long enough for you to shoot about one hundred feet of film [two double-eight rolls] before recharging. Its beam is adjustable from flood to spot, depending on the effect you want, and it gives 3400K lighting.

2 A No. 2 500-watt standard photoflood bulb in a clamp-on 12-inch metal reflector can be just as useful in indoor motion-picture photography as it is in still work. Use three or four to bounce light from the ceiling at the corners of a room for overall illumination, or arrange them to give you interesting directional lighting in medium shots and close-ups.

3 If you don't have a sufficient number of metal reflectors, you can use reflector photofloods in clamp-on holders. This medium-beam 375-watt flood is a popular size. It gives 3400K light–matched for amateur indoor movie film.

4 Even more compact are these 300-watt floods, especially designed for motion-picture shooting. The width of their beam is between that of an ordinary photoflood and a spotlight. This narrower, more concentrated beam is useful when you need to throw your light a considerable distance to reach your subject.

5 Also useful are these tiny 200-watt medium-beam floods. Designed for movie barlights, they also can be used individually in clamp-on holders. An advantage of their relatively low wattage is that you can use a number of them for varied lighting effects without overloading a household circuit. Of course, they're not practical for lighting large areas, but they can be good for medium shots and close-ups.

How to edit your film

Throughout this lesson we've stressed that a good movie is a series of *related* sequences arranged in story-telling order. It moves swiftly and surely from beginning to middle to end. It gets across its ideas without wasting the viewer's time on nonessentials.

To achieve this unity and concentration of effect, *editing is just as important as shooting.* Here is where you tighten and polish your film by assembling all your shots into a smooth visual narrative that will entertain and inform an audience.

So, if you've been in the habit of projecting your film as it comes to you from the processing lab, we urge you to set yourself up now for editing. You'll find it as creatively satisfying as making well-cropped, well-printed enlargements in still photography. The objective is the same: to transform raw material into a finished product.

Editing begins while you're on location. By shooting with editing requirements in mind, you can make your final editing a good deal easier. Here are some of the things you can do in most picture-taking situations:

1 Shoot plenty of cutaways and cut-ins: These provide the links you can use to tie different parts of your film story together. Give yourself a good variety to choose from. For example, every action has a reaction that is a potential cut-in or cutaway. When the batter hits a home run, follow up with a shot of the cheering spectators. When you're photographing the new baby, let us see the expressions on the faces of the admiring parents, the sceptical older brother, even the puzzled family dog sitting in a corner with head cocked. In shooting a film on skiing, you might also get a close-up of icicles hanging from the eaves of the base station or mittens hanging to dry by the fire. When you edit, you can use shots like these to help achieve a smooth transition from one action to another, and at the same time add story-telling touches. It doesn't matter what order you take them in, because editing gives you the freedom to rearrange them at will.

2 Change shooting distance often: A long sequence shot from one distance often seems painfully slow when you project it. But if you have a variety of medium shots and close-ups, they can keep your story moving swiftly.

3 Shoot more than one take of important scenes: Again, this gives you a choice when you edit.

4 Vary the length of your sequences: Like varying your shooting distance, this helps keep your film from becoming monotonous.

5 Keep a record of your shots: When you finish a roll of film, make a note of the roll number, the scenes it contains, and their order. This will save time when you edit. Even better is to follow the professional technique of recording identifying information for each take *on the film itself.* Write an identifying number on a small blackboard or piece of white cardboard and film it at the start of the take. Thus, when editing, you'll know immediately where one take ends and the next begins.

Organize your work

The secret of editing is good organization. Establish an orderly routine for editing your film and you can make it a pleasant job.

There are three stages to editing–*screening* on the projector, *rough cutting,* and *fine editing.* First, we'll discuss them from an overall point of view. Then we'll demonstrate the different editing procedures in detail.

Before you start screening, if you have a number of small reels it's a good idea to sort them by general subject–"Jimmy's new bike," "Our western trip," etc.–and put all related footage on one large reel [a 200-foot reel is good for 8-mm film]. Then you can run through the related material without frequently stopping to rewind.

As you run the film through the projector, keep a pad handy and jot down your thoughts on what the film needs. Are there any scenes so technically bad–overexposed, lightstruck, jumpy with camera movement, etc.–they ought to be eliminated? Do some of the scenes drag on endlessly? Are others repetitious? Would it be better to rearrange the order of sequences? What about those surprise shots you took that weren't called for in the script–where would they best fit in? Now is the time to plan your editing in broad outline.

With the reorganization of your movie thought out, you're ready for the rough cut. Transfer the film from your projector to an *action editor* [also called an *editor-viewer*], which allows you to run the film through it as fast or as slow as you wish, and to stop to study the individual frames. A typical action editor is shown on the facing page.

First, take your scissors and cut out all the defective material: over- and underexposed frames, fogged footage, out-of-focus shots, etc. Next, remove scenes that are repetitious or don't contribute to the story. But *don't throw away this extra footage.* Set it aside, carefully labeled, for possible future use.

Now the truly creative part of your editing begins–cutting your remaining film into scenes and rearranging them in the order that best tells your story.

Some editors roll up the cut strips and place them in numbered containers, such as typewriter-ribbon boxes, until they're ready to reassemble. Others prefer to hang the strips on nails in a rack, as illustrated later, or simply tape them to the wall. [Always hang the strip with its "head"–the beginning of the shot–at the top.] Whatever method you use, *be sure to identify each strip and indicate its planned position in the edited film*–otherwise you'll be lost in a tangle of film when you start to reassemble the strips. As long as each strip is identified, you can hang them in any order that's convenient.

At this stage, when you reassemble your footage, you can join the cut portions of your film with temporary splices. Use narrow strips of Scotch tape or masking tape and put them on both sides of the film, without covering the sprocket holes. These rough splices might jam a projector, but they'll move through your viewer and you can remove them easily when you make your final splices.

Fine editing

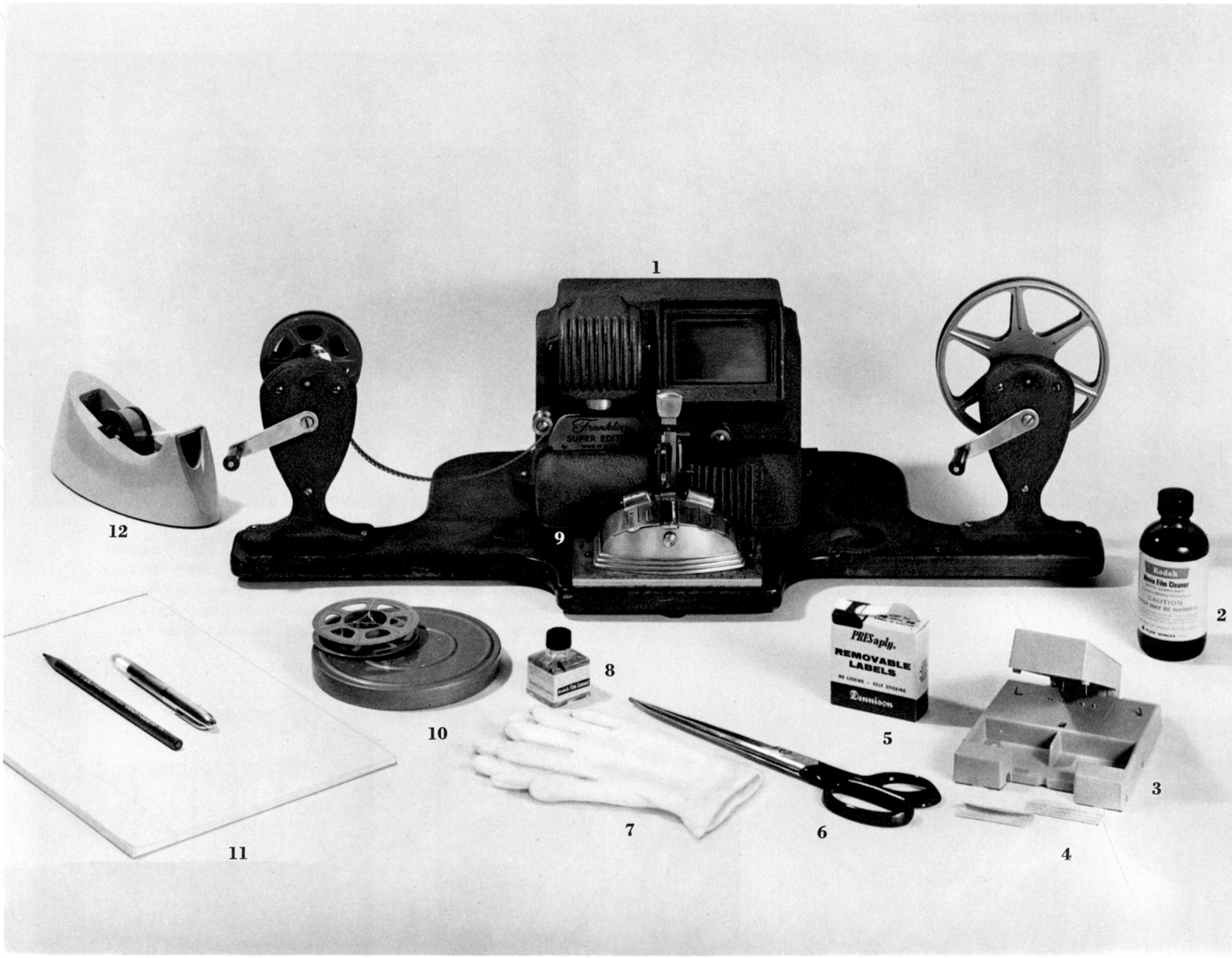
This is where you give your motion picture its finishing touches. The rough cut has established the right order of scenes. Now you can concentrate on the finer points of pace and timing.

If those long sequences you noted in the screening still seem to drag, tighten them up by cutting and resplicing. Vary the pacing of long and short scenes so that your film has a pleasing rhythm. There are no exact rules to guide you on this matter, because each film is different. You'll have to rely on your sense of timing and your knowledge of what you want the film to accomplish.

During the fine-editing stage you should also give thought to the overall length of your film. In the next lesson, when we talk about television movies, we'll show you how to measure the running time of your film so that it exactly fits program requirements. In a home movie, a rough guess will do. Generally, twenty minutes or half an hour is a good maximum length–anything longer is likely to get boring. Here's a basic formula to use in figuring how long your films will run: On 8-mm silent movies, *one foot of film equals five seconds of running time.*

Fine editing is also the time to add any *titles* for your film and to insert *opticals* such as fades, dissolves, and wipes. We'll discuss these special effects and their uses later in the lesson. Also, splice a foot or so of *leader* to the front of the film. This is a white perforated strip the same width as the film. It's threaded through your projector in loading it. Leader is added at the beginning of each reel by the processing lab. It may also be obtained at your photo dealer's.

When the fine-editing job is completed, you're ready to make your permanent splices. On the following pages we demonstrate two methods–by cementing and by use of special self-sticking tape called Mylar.



Tools and materials you need for editing

1 Action editor: Many models are available, some simple, some refined, but all basically consist of two crank-operated spindles and a device for projecting the film on a small screen. You place your reel of film on the left-hand spindle, thread it through the viewing mechanism, and attach it to a take-up reel on the right-hand spindle. By turning the cranks you can move the film through the viewer as fast or slow as you like, stopping to look at individual frames.

2 Bottle of film cleaner: Special cleaners are available at your photo dealer, but carbon tetrachloride can be used, too.

3 Splicer: This is used for permanently joining strips of film with special Mylar tape.

4 Supply of Mylar tapes: These are available in 8-mm, 16-mm, and 35-mm sizes.

5 Small, removable adhesive labels: You use these for identifying strips of film or marking places where you want to make cuts. Don't use ordinary gummed labels you need to moisten to attach. Use the self-sticking kind that's easily removable.

6 Scissors: You need a good sharp pair for cutting the film.

7 White cotton gloves: It's best to wear gloves at all times when handling your film. They protect the emulsion from scratches and fingerprints. Thin, washable gloves made especially for this purpose can be obtained through most photo dealers.

8 Bottle of film cement: You can also join your strips of film together with cement rather than Mylar tape. In that case you'll need film cement and a cement splicer.

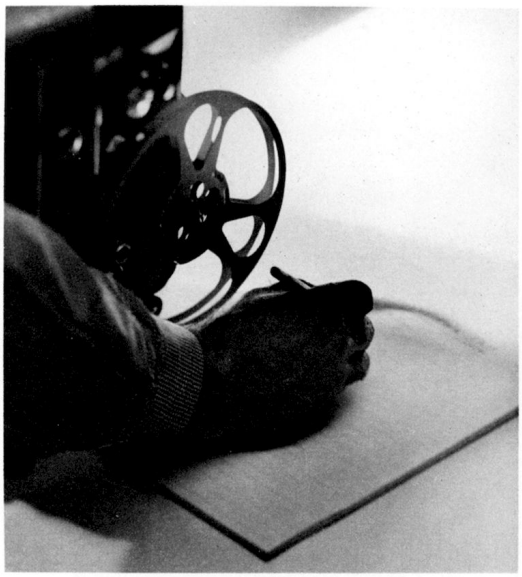
9 Cement splicer: This particular model of editor-viewer has a splicer built into it. [Many do.] However, you can also buy the splicer as a separate unit.

10 Extra film reels and cans: You'll find these useful for holding and storing leftover film or partly edited sections of film.

11 Pad and pen or pencil: You'll need these to take notes during screening as a guide to your editing.

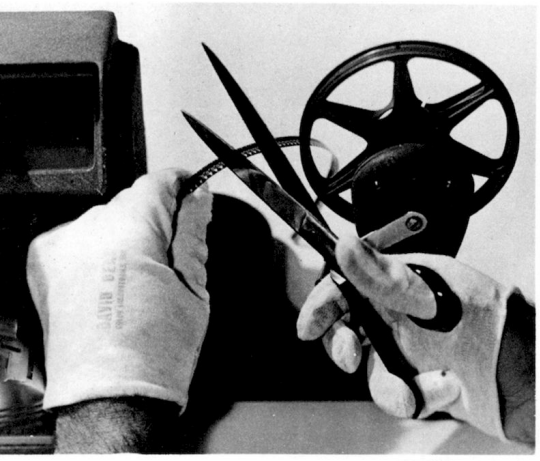
12 Tape: For making temporary splices during rough editing. Scotch tape in a dispenser is shown here, but some editors prefer masking tape because it is easier to remove when replacing a temporary splice with a permanent one of Mylar or cement.

Editing procedures



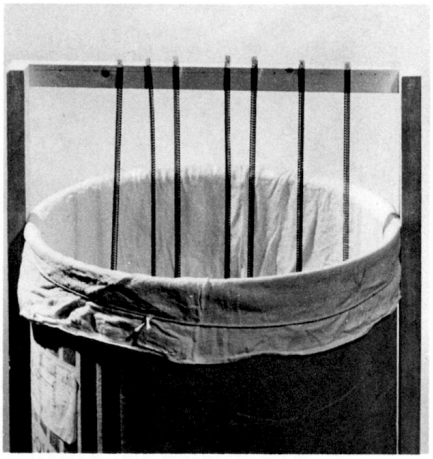
Screening the film: This is a key step in planning your editing. Run all your film through the projector–more than once, if necessary–and take notes. Write down the scenes you want to cut out and those you want to shorten. Indicate any rearrangement of scenes.

Using an action editor: Set up your action editor on any convenient surface and thread your film through it. Draw the shades or otherwise subdue the light. Most models project a fairly dim image that is adequate for editing but doesn't have the sharpness your movie projector gives. Turn the crank that rotates the take-up reel and watch the screen until you come to a place where you want to make a cut. Mark the frame.



Making a cut: Remove the film from the action editor and cut it with your scissors. Cut squarely across the film in the space between two frames so you don't spoil a frame. Notice that the person editing the film is wearing white cotton gloves to prevent scratches or fingerprints. Handle the film gently and no more than absolutely necessary–especially if you're working with original footage rather than a duplicate print. At this stage it's usually best to make cuts at the start and end of a sequence and put it aside for resplicing later.

Labeling the strips: Attach a small adhesive label to the end of the strip and identify it on the label. Any simple code is suitable. For example, you might number each scene consecutively and indicate individual takes within the scene by a letter. Thus, 3B would mean the second take of your third scene. Whatever system you choose, *be sure you identify the strips.* Otherwise, when you try to put them together again you're likely to get very confused.

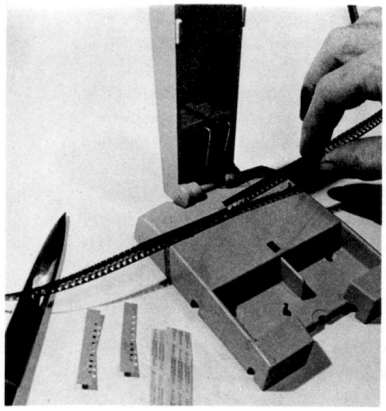


Holding the strips: The strips you plan to reassemble should be arranged in order and protected while you finish your cuts. A good method is shown here. A simple wooden frame is attached to a cardboard barrel, which is lined with cloth [any clean, lint-free sheet will do] to protect the film. The strips are held by fitting their sprocket holes over small brads nailed to the crossbar. Attach the film with its tagged end up so you can quickly locate it.

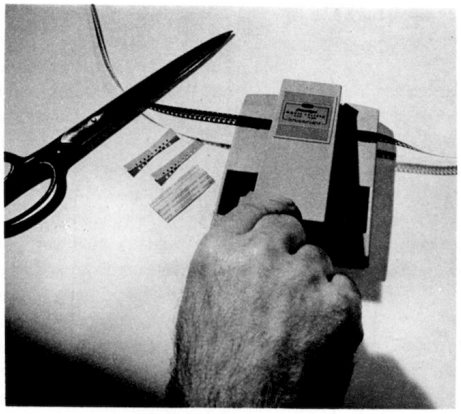
An even simpler method is to tape the strips to a wall and let them hang down on a sheet on the floor. Don't let them rub against any rough surface that might scratch them.

Making a Mylar-tape splice: When you reassemble your edited footage in the rough cut, temporary splices made with Scotch tape or masking tape are quick and convenient. But after you do your final editing, you should join all your pieces of film together permanently.

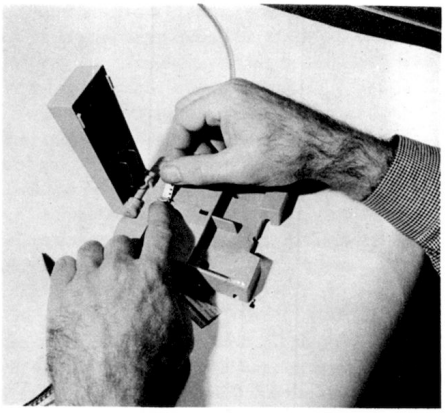
The most popular way of splicing is with Mylar tape—a strong, transparent plastic material coated with an adhesive. Mylar tape is easy to use, the joint is very strong, and, if properly made, it should not be visible when the film is projected. A number of different Mylar splicers and brands of tape are available. Be sure to follow the manufacturer's directions. The three pictures below show how a typical Mylar-tape splicer works. Practice on a couple of scrap ends of film until you get the knack before working on your finished footage.



1 Place the two pieces of film you want to join in the splicer. Tiny prongs in the splicer pass through sprocket holes in the two sections of film and anchor them in place. The two strips must be placed so they overlap slightly, as shown.



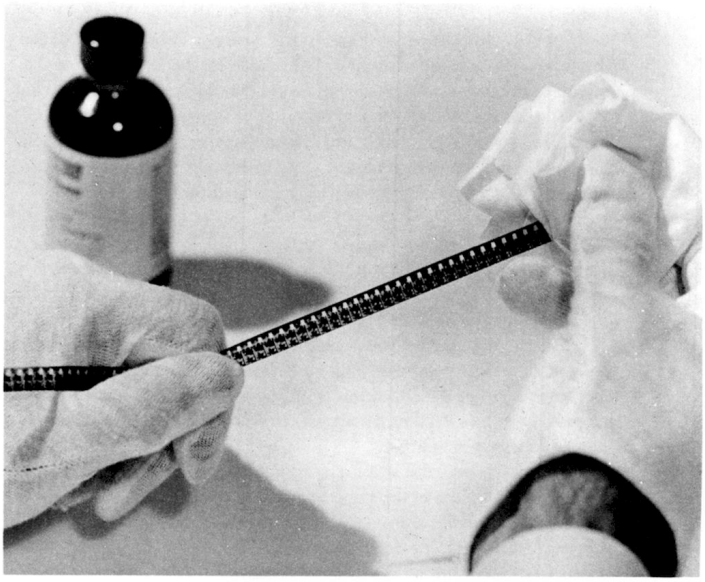
2 Lowering the splicer's cutting bar cuts the two strips so they butt perfectly against each other. [At the left of the splicer are two Mylar tapes ready for use and a package containing an additional pair of tapes.] If you don't have gloves, handle the film especially carefully—and by its edges only.



3 Raise the bar and attach a tape so it overlaps both strips. Pressing firmly on the tape makes a tight joint. The tape comes in a covering which you peel off as you apply the tape. Then turn the film over and apply a second tape to the other side.

Cement splicing: Despite the popularity of Mylar tape, cement splicing still is the standard professional method. It is simple, but requires a little more time because you need to let the cement dry. However, the joint is smoother and less conspicuous.

Place the two ends of film to be joined in the splicer so they will slightly overlap when joined. *The emulsion [dull] side of the film must be up.* With a scraping bar, scrape off a bit of the film emulsion at one strip end. Add cement sparingly with the brush applicator that comes with the cement. [This is the step shown.] Then press the two strips together. A cutting bar slices off the excess film at the same time. The strips are held together under pressure for a moment, then the joined strip is removed.



Cleaning the film: After editing is completed, it's a good idea to clean the film, using carbon tetrachloride or special movie-film cleaner. Apply gently with a clean, lint-free cloth or piece of tissue. The fumes of these cleaners can be harmful, so work in a well-ventilated room and avoid prolonged breathing in of the fumes.

Opticals

Generally, you will link the separate parts of your film together with cuts, matched action shots, angle changes, and the other basic transitions we've discussed. Now and then, however, you'll encounter situations where your story sense will tell you that a somewhat stronger transition is needed. Here, you can make use of the so-called *opticals* or *optical effects* such as fades, dissolves and wipes. [An example of each is shown on the right.] These are the visual punctuation marks of moviemaking. When properly used, they add to the clarity and meaning of your story and give your movie a more finished, professional look.

Opticals are usually made to order by the film laboratory on special equipment called an *optical printer,* which projects the processed film and rephotographs marked portions to get the desired effect. Optical equipment is primarily designed for 16-mm and 35-mm film, and most laboratories can't handle 8-mm material. However, with some types of movie cameras you can make opticals yourself, as we'll explain. But don't overdo them! Like too many exclamation marks in a piece of writing, too many opticals have a distracting effect on the viewer.

Fades

A fade is a gradual transition from dark to light [*fade-in*] to mark the beginning of a scene, or from light to dark [*fade-out*] to mark the end. Fades serve the same purpose as the rising or falling of a curtain in a stage play. A fade-out of one scene is usually followed by the fade-in of another. The audience knows that one story episode has ended and another is about to start.

You can make a fade by opening or closing the lens diaphragm while the camera is running. For a fade-out, start with the normal setting [as wide open as possible] and stop down–slowly at first, and faster as you approach the end of the fade–until the lens aperture is closed as far as it will go, thus darkening the picture. For a fade-in, reverse the process. Take a test roll of film and experiment at different speeds and under various light conditions until you get the effects you want.

If your camera has a variable shutter, you can use it instead of the diaphragm to vary the amount of light reaching the lens. Operate the manual shutter control just as you would the diaphragm control. That is, gradually increase the shutter speed to progressively decrease exposure so your scene fades into blackness. Also available are special-effects attachments that fit almost any camera and permit you to fade out and fade in by gradually blocking off the light while shooting.

Dissolves

In a dissolve, one scene is superimposed on another and gradually replaces it on the screen. As the first scene fades out, the second fades in. [Since the scenes overlap, it is sometimes called a *lap dissolve.*]

The most popular use of the dissolve is to indicate the passage of time in a more gradual way than an abrupt cut. For example, we mentioned earlier the transition from a snow-covered home to a tropical beach. Instead of a contrast cut, you might decide to dissolve from one locale to another.

The dissolve can also serve a story purpose by linking two incidents that are taking place at the same time and are related in a dramatic way. To continue the above example, you might show someone shoveling snow outside that winter-bound home and *dissolve* to a shot of his friend basking on the tropical beach.

If your movie camera has a device that enables you to wind back the film to make a double exposure, you can produce your own dissolves this way:

1. Shoot your first scene as a fade-out and check your footage counter to see exactly how many frames you used during the fade.
2. Place a cap over the lens of your camera and wind back *the same number of frames.*
3. Remove the cap and shoot the second scene as a fade-in.

When the film is developed, the first scene will gradually fade away as the second one appears and for a few frames both scenes will be visible on the screen.

The special attachments we mentioned above will help you make dissolves as well as fades–provided, of course, that you can wind back the film to get the necessary double-image effect.

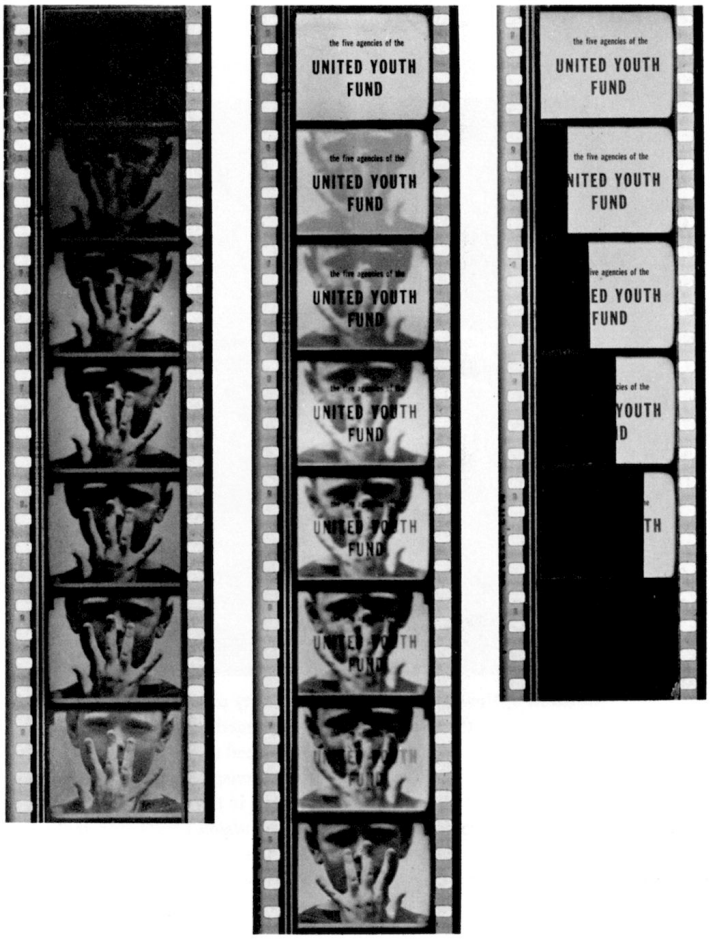
Wipes

The wipe is a special kind of transition in which one image pushes another off the screen. Usually, a black line moves across the screen, uncovering the second scene while it "wipes" the first one away. Or it can be an area of black that moves across the screen, progressively blocking out the image. The wipe can move from either side or from both sides toward the middle. It can also travel vertically, diagonally, or in almost any progression you choose. A circular wipe might start as a small spot of light that gradually expands until it fills the screen. Or it could go from a large circle to a tiny dot.

To make a wipe, you'll need a matte box–a metal enclosure that fits over the camera lens. The matte box has channels for moving an opaque wiping mask across the lens field as you shoot. Follow the manufacturer's instructions and experiment on test film.

Before you become too intrigued with the possibilities of the wipe, however, ask yourself what purpose it is serving in your film. Actually, its uses are quite limited as it contributes little beyond a touch of novelty. For opening and closing scenes, you'll find fades and dissolves generally more satisfactory because they're less obviously contrived.

Fade **Dissolve** **Wipe**



Special effects

In the early days of film making, audiences were fascinated by special effects, and photographers devised an endless variety of stunts to mystify and amuse them. Cars raced down streets at incredible speed, people ran backward, and objects appeared on the screen from nowhere.

Although the novelty of camera tricks has long since worn off, these and other special effects are still justified when they serve a legitimate story purpose. For example, a *slow-motion* sequence of children playing an ordinary game might have little meaning. But if two of them can perform an intricate dance step, slow motion could be excellent for showing just how they do it.

Comedy, particularly the slapstick kind, has long been a popular reason for using special effects. It's still a good one–if the situation is truly comic and fits the spirit of your movie. Just remember that a little slapstick goes a long way.

We'll discuss some of the more elaborate special effects in the following lesson. Here we'll describe just a few of the more important and generally useful ones–slow motion, fast motion, and how to make objects mysteriously appear and disappear.

Slow motion

As you know, a silent movie is normally filmed and projected at a speed of about 16 frames per second. If you increase the shooting speed to 32, 48, or 64 fps but project at the normal speed of 16 fps, you get the effect of slow motion. This is because every second of shooting time is stretched out over a longer period when projected. For instance, a shot that takes only a second to film with the camera set at 64 fps will take four seconds to run on the screen. Just remember: The *faster* the shooting speed, the *slower* the motion when the film is normally projected.

With slow motion you can show in minute detail the swing of a golfer, the leap of a high jumper, or the movements of a whirring machine. Slow motion often has a beauty of its own. A row of trees swaying in the wind, a leaping fish, or a bird in flight take on a graceful, dreamlike quality when their actions are slowed down.

Slow motion becomes strongly apparent only at speeds of around 64 fps. However, you can use lesser speeds for modified effects. As mentioned earlier, you might be shooting a scenic panorama from a moving vehicle and want to reduce camera vibration. A camera speed of 32 or 48 fps will help to smooth out the bumps.

Remember to increase your exposure when running your camera at faster than normal speed. If you double the speed, double the exposure also. This is necessary because the shutter speed increases with faster frames-per-second running speed. Also, check your winding mechanism before you start, as the faster speed will put an extra drain on the motor wind.

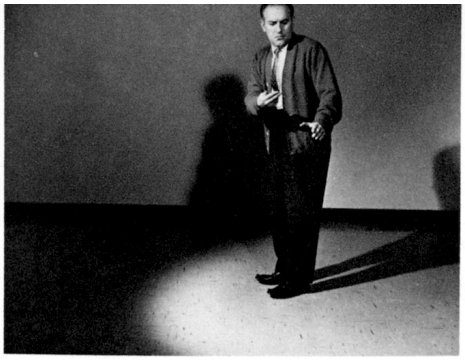
Fast motion

This is achieved in just the opposite way from slow motion–by *reducing* the fps. When the film is projected on the screen, time is compressed and everything seems to happen at an accelerated pace. A crawl becomes a walk and a walk becomes a trot. Movements are quick and jerky.

Where people are involved, the obvious use of fast motion is for comic effect, but it can be helpful in other ways, too. You might, for instance, want to suggest a storm in your film. You slip a red filter over your lens to darken the sky and take fast-motion shots of moving clouds. On the screen the clouds will seem to be moving rapidly, as if driven by storm winds.

Or you might want to show a car bearing down on the camera at high speed. You have someone drive the car toward you at moderate speed, but you shoot at slower than normal fps. The effect will be as dramatic as if you risked your life to get the shot.

Again, you'll have to compensate for exposure changes. Slower camera speed means more light for each frame, so *reduce* exposure.



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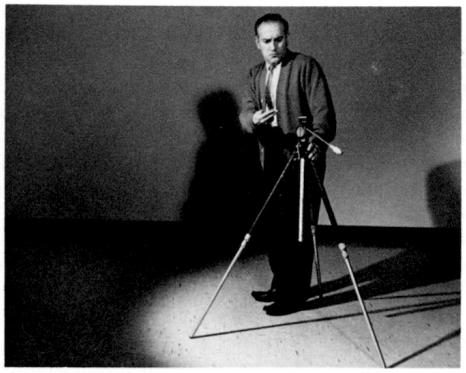

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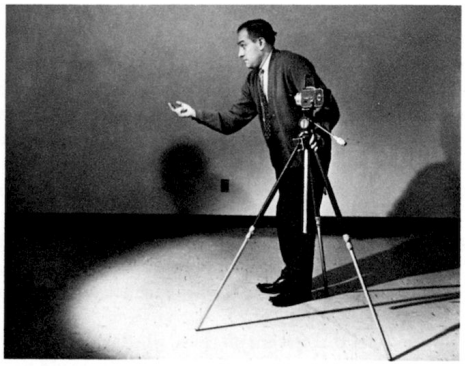


3

4

Making objects appear or disappear

Above we demonstrate an amusing effect that will give your film an element of humor and surprise. First shoot a few feet of your subject without the object you want to cause to appear, then stop shooting. Picture 1 represents the effect you'll get. Being careful not to move your camera or have your subject change his pose, add the object you want to the scene–the tripod in Picture 2– and resume shooting. When the film is projected, the object will seem to appear as if by magic. You could then add other things, such as the camera in Picture 3 and the model in Picture 4. You also can make things disappear by reversing this procedure.

Titling

A motion picture needs titles for the same reason that a book or magazine article does. Movie titles identify the story and define its limits. They say: Here is what the film is about, this is the beginning, and this is the end. They also help to establish location and mood and, sometimes, they give information that can't be shown in pictures. Further, they give your film a professional quality that an audience is quick to recognize and appreciate. Titles are well worth the extra time and care involved, and they needn't be costly to produce.

The principal types of titles are *main, credit,* and *end.* The main title is the first thing your audience sees. It introduces the film and sets the stage. A main title might be a lettered or printed message, an identifying location shot, or a combination of the two.

Often, the main title is followed by the credit title, which lists the principals who took part in the production. In professional films, credits are a must for at least the director, producer, photographer, and writer, who, in effect, "sign" the film. In amateur productions, you can include screen credits as a courteous gesture to those who helped make the film, or just for the fun of it if the helpers are members of your own family.

The end title simply indicates that the movie is over. Usually, it closely follows the main title in style.

In the era of the silent films, *subtitles* sprinkled throughout a movie were much in fashion to introduce a new scene or explain an action, but today they are seldom used. So far as possible, good moviemakers prefer to keep the story going without interruption by using one or more of the transitional techniques we've discussed. Why say, "Our boat stopped at the Island of Malta," or "We got back late the following night," when you can make the point more smoothly with a cut-in or action sequence? However, subtitles such as maps, charts, or other graphic material are often helpful, when blended smoothly into the action.

There are several rules that govern all titles, whether for an elaborate feature picture or a home movie. First, a title should be *simple and easy to read.* If the audience has to puzzle out the wording, a title defeats its own purpose. For the sake of clarity, use light letters on a dark background, or dark letters on a light background. In a color film, use contrasting colors or contrasting values of the same color. Generally, it's well to avoid reds for title backgrounds, as some shades tend to vibrate and make the letters difficult to read.

Second, a title should be *brief.* Use the fewest words possible to get your information across. Try to keep your title to a two- or three-line maximum. It should be on the screen sufficiently long for you to read it aloud, very slowly. Even a very short title should run long enough for you to count to five.

You can make titles while you shoot

Some of the simplest and best titles are the ones you can shoot on location. A familiar example is a title written in wet sand with a pointed stick. You start shooting as a wave rolls in and washes the lettering away–a natural lead-in to the start of the film. While you're filming your action scenes, keep an eye open for good title possibilities like this. Shoot a number of them, then choose the strongest when you edit.

You can think up many effective titles to fit the atmosphere and settings of your movies. If you're filming a western vacation, for example, you might form the letters of your title with rope, fastened to a weathered plank. For a birthday party picture you might shoot an extreme close-up of the message in the cake frosting–"Happy Birthday to Jane." Hold the camera steady for about five seconds, then dolly back slowly to a medium shot that opens your movie.

For a school movie, you might letter the title in chalk on a blackboard, and for an outdoor film perhaps you would paint the title on a large rock.

Watch for road and street signs that will provide good ready-made titles for your travel films. Move in close and cover yourself by shooting at several different exposure settings. Often, a travel poster makes an ideal title. If the poster design doesn't readily adapt to a movie-frame format, you can pan or tilt slowly to include the whole message.

You can use on-location shots for your credit titles, too. For example, in a home movie you might have various members of the family walk across the set with signs explaining their part in the production: "I wrote the script," "I handled costumes and makeup," etc. The personal touch would be refreshingly different from the usual static listing of credits.

Lettering over background

Sometimes it won't be possible to shoot on-location titles, or you may prefer to set up your titles in a more formal way. Here the lettering-over-background method is your best bet.

With a little research you can probably find a suitable piece of art for your title background. Jumbo postcards, for example, are just about the right size and shape. Or you might find an advertising picture that will serve nicely. Pick illustrations that have deep-toned areas, such as dark blue sky, to set off your lettering. Avoid subjects that are cluttered or have high-contrast detail that might overpower your title.

If you want the background closely keyed to your film, take a still camera on location with you and shoot some horizontal views. Enlarge them to 5x7 and they'll be just right for title backgrounds.

Now the lettering. At most photo dealers you can get a titling kit with either flat letters or three-dimensional block letters about a quarter-inch thick which will throw a shadow when lighted from an angle. The most versatile block letters are the white ones with an adhesive backing used in our illustrations. Since they'll adhere to any dry surface, you can use them for horizontal as well as vertical title setups. Thus, you can tape your background art to the wall, place your spelled-out title over it, and make a close-up shot that becomes your finished title. You might affix the letters to a piece of luggage, a camera case, a car window or any surface that provides an appropriate background. You can even carry them with you while you're shooting the film and make your lettered titles on the spot. Another advantage of the adhesive letters is that they are quickly removed and are reusable.

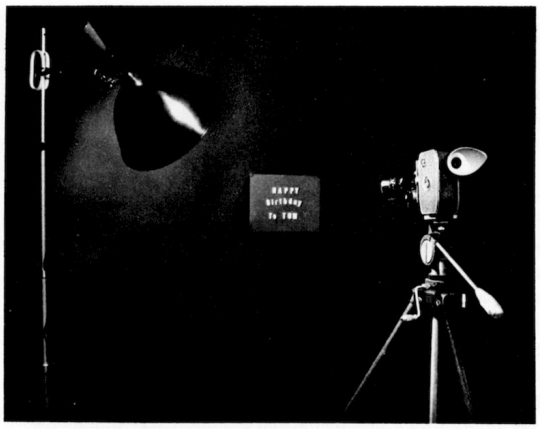
Shooting titles over action

Perhaps the most professional-looking titles are those in which the lettered copy is superimposed on an action scene. If you have a camera with a wind-back mechanism, you can make them yourself. Here's how to go about it:

First, shoot your action scenes–preferably ones that aren't too "busy" and have dark areas in the center, where your title will appear. These shots will be your backgrounds. [Allow about five seconds of footage for each.]

Second, make a careful note of the footage you've exposed and wind back to the starting point.

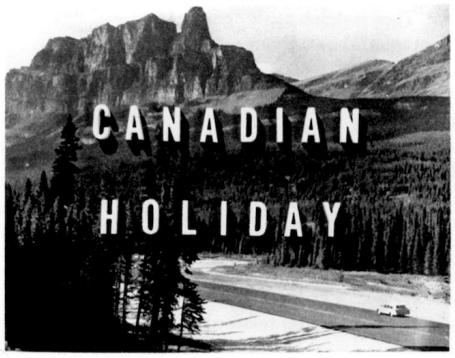
Now, take your white stick-on letters and spell out your main and end titles against a *black* background [black construction paper is good for this purpose]. Move in close and shoot the titles on the already-exposed film. The white letters will cut through the dark areas in your scene and you'll have a title over action in the best professional style.

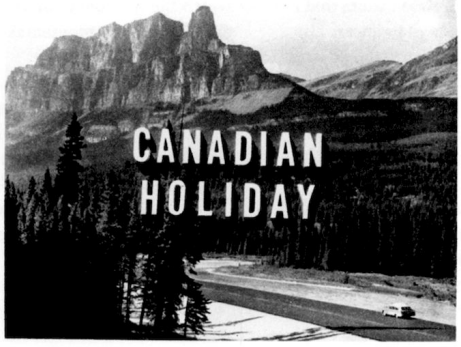


A movie camera with reflex viewing and focusing is ideal for shooting titles. With your camera on a tripod, a flood or a spot, a wall, and a set of stick-on block letters, you can easily make a variety of titles with a setup like the one shown. A flood or spot in a high 45-degree sidelighting position will throw black shadows that make the white letters stand out strongly and look three-dimensional. [A medium-value background contrasts best with white letters and black shadows.] If you don't want a three-dimensional effect, attach the letters to a black background and use flat lighting.

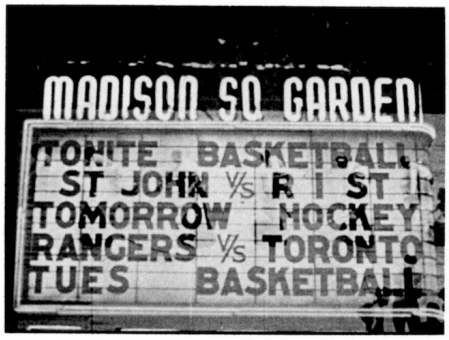
If your camera doesn't have reflex viewing and focusing, a reflex-viewing attachment may be helpful in shooting titles. This attachment is fastened in front of your camera lens, as shown. When you look through the eyepiece in the top you see an accurately framed image. Depending on how close your lens will focus and how small the title is, you may also need a close-up lens.

Also available for 8-mm and 16-mm cameras are a variety of titling stands that enable you to align the camera and title accurately. Some stands hold the camera vertical with the title lying flat, and some hold the camera horizontal with the title upright in front of it.

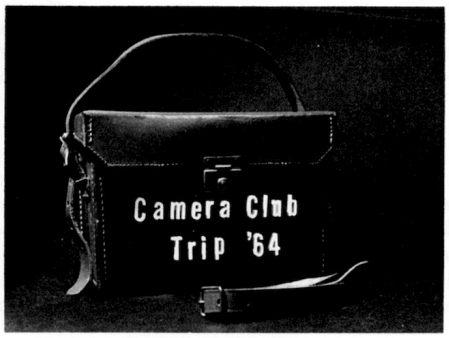




Travel posters, booklets, and brochures can provide good backgrounds for titles to your travel films. Collect and save them for this purpose. At far left, for example, stick-on letters are placed on a photograph in a page cut from a brochure on Canada. However, be careful that you don't jam your letters too close together, giving an uncomfortable, crowded look, as happens at left. The surrounding picture area seems too big for the lettering. The spacing in the previous picture is much better.



Watch for signs you can use as titles or subtitles. Here, for example, is a close-up of the marquee outside Madison Square Garden. O'Reilly used this shot to introduce a sequence on a college basketball team.
[Courtesy St. John's University]



You can use stick-on letters to spell out titles and subtitles on your luggage, possibly with some identifying building or landmark in the background. Another good trick with the letters is to put them on a window with an interesting view outside. Focus on the letters and use the view as a living background.

Maps often can be valuable as subtitles for travel films. Use an ink marker to show your route clearly. If the map is large, you may be able to start with an overall view and slowly zoom in to show the area you visited. Another method is to pan along your route.

Creating motion pictures

The methods of motion-picture photography are as many and complex as they are fascinating. We have covered only some of the most basic ones in this lesson. However, if you master these simple techniques and apply them to your own shooting you'll have taken a big step toward becoming a successful motion-picture photographer–one who can make films that catch and hold the interest of an audience.

We assume that you do want audiences to appreciate your work. Even if you make a film purely for your own pleasure, the deepest satisfaction comes when you share what you have created with others–when your film comes alive on a screen and absorbs the attention of the viewers. But you're not likely to hold their interest for long if your film is merely a collection of unrelated animated snapshots. An interesting film has a purpose. It is *about* something.

This is why we have stressed the importance of beginning with an idea which you develop into a story. Your story or theme may be very simple or it may be sophisticated and complex. But no matter what your subject, a good film needs a narrative, story-telling flow. Things must happen on the screen to quickly involve the viewer.

Obviously, it's next to impossible to create something as complex as a motion picture without some planning. The failure to find a good basic idea and work it out even in the most rudimentary form is probably the single biggest reason why so many amateur films fail to hold our interest. Therefore, at the very start, *decide what you want to say and what shots you need to say it.* We recommend you prepare a story treatment and a shot list, but any kind of shooting script–no matter how brief–is better than none.

Telling your story

Tell your story by visual means–with sequences of related shots that create an illusion of reality and explain themselves to the viewer. Use the basic building block from which most movies are constructed–the 1-2-3 sequence of long shot, medium shot, and close-up. This enables you to show an action on the screen in a way that simulates what a person would experience if he were actually viewing the events. But remember, too, that the simple LS-MS-CU sequence is capable of infinite variations.

Avoid monotony. You can relate your story in a clearer, more interesting way by adding cutaways, reestablishing shots, and cut-ins, and by using camera movements [pans, zooms, tilts, etc.] when these are appropriate. And, for good variety, change camera angle and/or the field of view whenever you cut from one shot to another.

As you plan, shoot, and edit your film, also keep in mind the fundamental rule of motion-picture directing: Each shot must be quickly and clearly understandable to the viewer, and he must instantly grasp its relationship to what went before and what comes after. Maintaining continuity will greatly help in this respect. Take pains to keep your characters, lighting, background, and costumes consistent within a sequence. Avoid confusing reversals of the subject's direction of motion. Match the action from shot to shot, or otherwise provide for a smooth transition.

The importance of editing

An unedited film is not a motion picture–it's only the raw material from which a finished film can be made. Use editing creatively, not just to eliminate badly exposed or surplus footage, but to rearrange scenes, splice in transitions, and control the tempo of your film.

With the aid of a pair of scissors and a splicer, you can take photographic images you may have shot many miles and weeks apart and create a meaningful relationship between them. You can speed things up by cutting away footage, or slow them down by interposing new shots. If you handle the editing skillfully, what you create will give the illusion of reality when projected on the screen–but a reality that is more varied and interesting than it actually was.

In editing, too, you can control and refine the tempo of your film. We have repeatedly emphasized the need for continuity of narrative flow. But this doesn't mean your film should always move at the same steady, even pace. Vary the tempo, depending on the mood and subject of each sequence. For scenic views, you might choose long, leisurely shots that give the viewer ample time to absorb the details of a beautiful landscape or interesting building. For a basketball game you might emphasize the fast action with a rapid succession of short close-ups. By beginning with a slow tempo and gradually speeding up the rhythm of your sequences you often can increase the feeling of tension and excitement as an action builds to a climax.

There are no mechanical rules to guide you in this matter of tempo –each sequence will have its own needs, and you'll have to judge for yourself how long it should run, and how the pacing should be varied.

Studying films

One of the best ways to develop a feeling for pacing and tempo and sharpen your insight into every other aspect of moviemaking is to watch good movies, past and present. To do this effectively, you usually must view a film more than once. If it's a good film, the unfolding of the story will probably absorb your attention so much you may find it hard to concentrate on the techniques employed. So watch the film once for enjoyment. Then watch it again for what you can learn about moviemaking techniques. Here are some specific things to look for:

How does the film catch the viewer's attention at the start?

How are entrances and exits handled?

How are long shots, medium shots, and close-ups woven together?

How are transitions handled between individual shots and between major sequences of the action?

What use is made of camera angles?

How do camera movements–panning, tilting, dollying, etc.–help tell the story?

How do lighting and composition help?

How does the tempo keep up viewer interest and reinforce the mood?

For repeated viewing and analysis, the best method is to rent or buy a film. A wonderful free source of films for study is television, where often the same movie may be run for several nights in a row, offering you a chance to study it carefully.

The kind of perceptive, imaginative seeing you've been training yourself to do in still photography is fine preparation for motion-picture seeing, too. But the added element of movement calls for increased awareness in your seeing. A dead leaf scuttling across the snow, a long line of automobile lights crawling along a superhighway at dusk, the graceful movements of a child playing tag, the comic exertions of a fat man changing a tire, the swoop of a gull or the blows of a pile driver–all these are things you might see and use in your films. Open your eyes to the beauty and excitement of motion in the world around you and train yourself to see, not just as a still photographer, but as a movie photographer, too.

Technical notes on the photographs

Pages 12-13
Jack O'Reilly; data for entire film: 35-mm Mitchell with 35-mm, 50-mm, 75-mm and 100-mm lenses; Plus-X [negative] film; exposures between *f*/3.2 and *f*/4.5 [with use of neutral density filters where required]; daylight with fill-in reflectors.

Page 14
Jack O'Reilly; 16-mm camera with a 25-mm lens; Ektachrome film; *f*/11; daylight.

Page 15
Jack O'Reilly for Celanese Corporation of America; 35-mm Mitchell with a 38-to-150-mm zoom lens; Plus-X [negative] film; *f*/5.6; daylight plus flood fill.

Page 15
Jack O'Reilly for Celanese Corporation of America; 35-mm Mitchell with a 38-to-150-mm zoom lens; Plus-X [negative] film; *f*/5.6; daylight plus flood fill.

Page 15
Jack O'Reilly; 16-mm camera with a 25-mm lens; Ektachrome film; *f*/4.5 [with a neutral density filter]; daylight.

Page 17
Jack O'Reilly; 16-mm camera with an 18-mm lens; Ektachrome film; *f*/1.4; available light; excessive orange cast due to tungsten lighting was removed when final release print was made.

Page 17
Jack O'Reilly for Celanese Corporation of America; 35-mm Mitchell with a 38-to-150-mm zoom lens; Plus-X [negative] film; *f*/5.6; daylight plus fill.

Page 23
Jack O'Reilly for Celanese Corporation of America; 35-mm Mitchell with a 38-to-150-mm zoom lens; Plus-X [negative] film; *f*/5.6; daylight plus fill.

Page 25
Jack O'Reilly; 16-mm camera with 18-mm, 25-mm, and 3-inch lenses; Ektachrome film; *f*/1.4; for picture of office sign, one 1,000-watt spot was used behind the glass door, remaining pictures were lighted with two Color-Tran units with spotlight bulbs and diffusers.

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Lesson

24

Moviemaking for television

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4 Keep it simple
6 Composition
9 Lighting
12 Planning and shooting a commercial
14 A food commercial–storyboard and film clips
18 A drug commercial–storyboard and film clips
20 Special effects
22 Animation
24 Creating movies from stills

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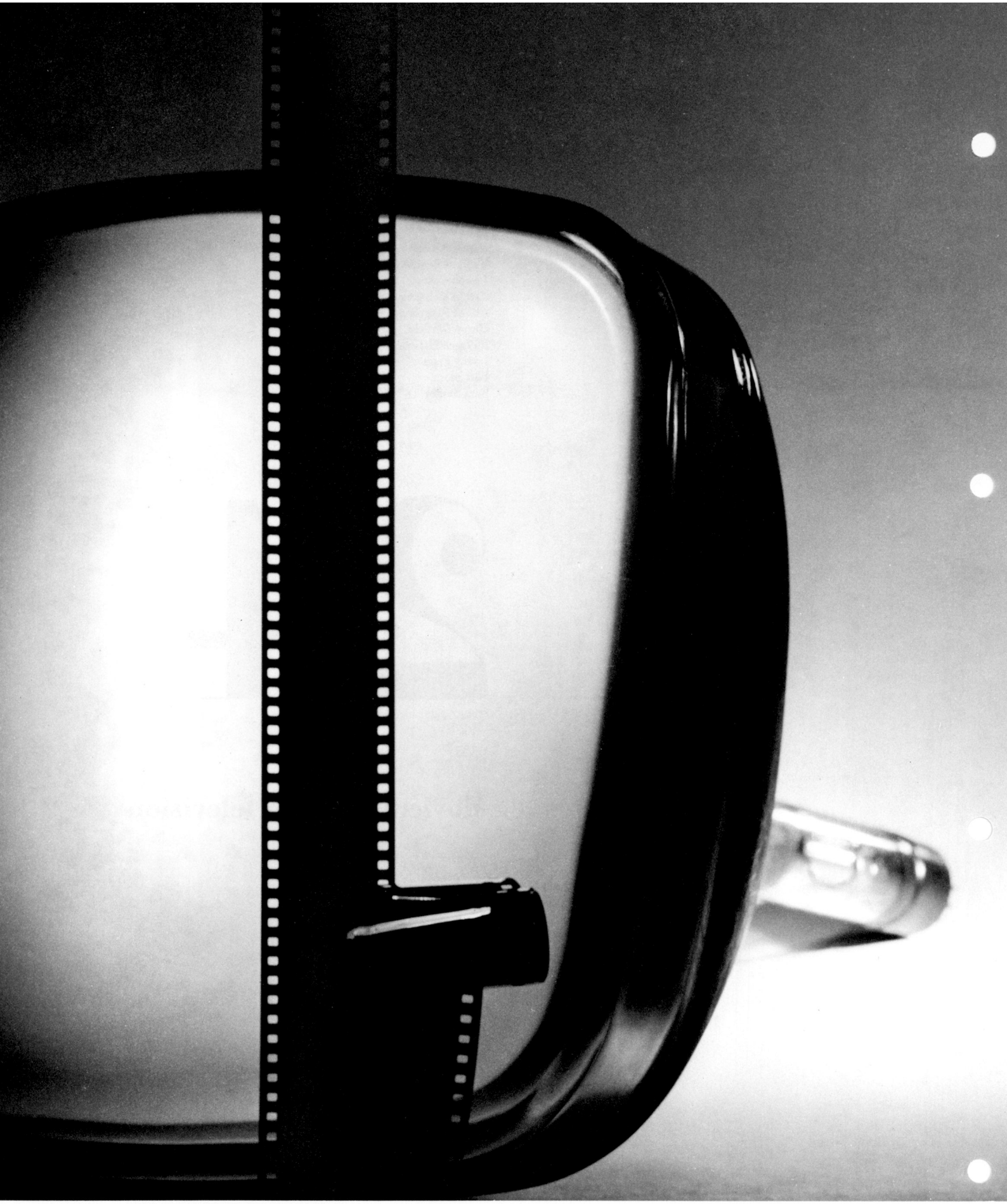

Television [symbolized by the picture tube above] requires enormous quantities of filmed images to supply it with material. Commercials, news coverage, documentaries, and dramatic features often are shot on film especially for TV use. In this lesson we'll show you how to adapt your knowledge of photographic lighting, composition, and basic moviemaking methods to meet the needs of this exciting medium.

Photographers and television

Television–the newest of all mediums of entertainment and communication–offers promise both for motion-picture and still photographers. It provides a chance for you to reach an enormous audience with your work, to utilize your most creative talents, and to earn a high rate of pay. It's exciting, too, because it's a relatively young field, in which much remains to be explored, developed, and perfected.

Today we take this new medium–and the multimillion-dollar industry it has created–pretty much for granted. Yet whether we realize it or not, it influences our habits, manners, opinions, tastes, and the way we spend our money. It will continue to do so as it continues to grow–not only in America but everywhere in the world. And with this growth will come increasing opportunities for photographers.

Opportunities in TV

Although much television is broadcast live [or from recordings on video tape] the demand for filmed images is enormous, and seems likely to remain so for the indefinite future. Television uses up material at a fast rate, creating a continual demand for new pictures. Let's consider some of the many ways that stills and movies are used on TV.

Commercials: This is the hungriest and most financially rewarding market of all. Advertisers have found that television is one of the most potent mediums for advertising ever devised, and pour many millions of dollars into producing TV commercials each year. There is a constant need for fresh ideas and imaginative visual thinking here. The opportunities aren't limited to the big cities and giant networks, either. There's also a great need for new talent in small cities and towns everywhere, on local stations. Because the commercial is such an important aspect of movies for television, we are emphasizing it in this lesson.

News coverage: In a world that seems increasingly complex, one of television's finest achievements has been reporting news events. Sometimes live coverage can be arranged, but more often TV must rely on still and motion pictures. If you are interested in picture reporting, you may find a good opportunity covering events for your local station.

Documentaries and special features: What a picture story can do for a magazine, a documentary or special-feature film can do for television–it's a visual report in depth on some topic of interest, from automation to the private life of a celebrity. Some of television's best photography–and best interpretive reporting–has been done in this area. For the photojournalist, shooting documentaries is the natural, logical next step, and the opportunities for doing creative, valuable work can make that step well worth taking.

Education: Techniques of teaching by TV are becoming of major importance. The increase in educational television stations and closed-circuit television in schools and universities has vastly enlarged the need for serious films on art, science, history, and other subjects.

The need for simplicity

In this lesson we'll familiarize you with the working procedures of television photography so you can more readily take advantage of the opportunities in the fields we have just surveyed. We'll emphasize the kind of thinking and seeing that makes good TV films. Again we'll draw upon the experience of guest expert Jack O'Reilly and also on that of Faculty members Irving Penn and Bert Stern–still photographers who have succeeded in television. We won't go into the technical details and production aspects of television because these are too complex and can only be learned on the job.

A basic principle in television moviemaking–one that can't be stressed too much–is that you should always work for *the utmost simplicity and clarity in your pictures*. We'll demonstrate methods of composing and lighting to help you achieve this. We'll also explain how to plan and shoot commercials for television, teach you some interesting special effects, show you how to animate still objects, and how to use still photographs to create motion-picture films.

Sound and movies

Most films produced for television use sound [and so do an increasing number of amateur movies]. A great advantage of a sound movie is the realistic effect it can produce because it appeals to the eye and ear simultaneously. Sound can enrich the image, reinforce mood, and give the viewer the impression of experiencing the action "in the round" rather than merely looking at a picture. However, don't go overboard and use sound in an arbitrary way, just for its own sake. Any sound–music, narration, dialogue, or sound effects–should have a reason for being, as we'll explain.

Musical background: The right music can enhance your film by helping to create and sustain an appropriate mood. Select your music with the action and story in mind. A brassy march might be right for one scene, a soft passage with strings for another. A particular theme might be played each time a certain character appears. In a commercial, a song or jingle often is used to identify a product.

Narration: Narration is spoken commentary that accompanies a film, with the speaker usually not appearing in the picture. Its purpose should be to tell in words what can't be shown in pictures–to fill in place names and dates, make comments, or add facts that give fuller meaning to the film. However, in a good sound film, just as in a good silent one, *the pictures should carry the story*. As much as possible, show rather than tell. Use narration to amplify and enrich the pictures, not as a substitute for good visual continuity.

Sound effects: Hardly any scene in real life is completely silent. The slamming of a door, the whir of traffic, the shriek of a whistle, the growl of thunder–all are part of our total sensory experience. These incidental sounds of daily life can greatly intensify the realism of a movie and help evoke the atmosphere of a time and place.

Lip-synchronized dialogue: The most exacting use of a sound track is that in which spoken dialogue is matched precisely with the movements of the speaker's lips. This *lip synchronization* creates a vividly realistic effect on the screen but requires special filming and recording techniques and very painstaking editing. Therefore, it's rarely used in amateur films.

Good dialogue, like good narration, is not just talk for talk's sake. Any spoken words should have a purpose–to advance the action, reveal something about the speaker's personality or emotional state, or give facts not self-evident in the picture. If an idea or emotion can be conveyed vividly without words, then don't use dialogue. In TV films, dialogue is most commonly used in filmed interviews, commercials, and dramatic features.

There are a number of ways of adding sound to a motion picture–with a tape recorder, magnetic striping, or an optical sound track. For a discussion of sound-recording systems, see the moviemaking section of your Technical Manual.

Studying TV

To learn about television moviemaking, one of the best teachers you can have is your own television set. It is important that you watch television and observe what is being done in photographic techniques if you want to succeed in this field. Notice the composition, the lighting, the camera angles, the pacing of scenes, the use of opticals and special effects. Be particularly aware of how ideas are gotten across visually, and how a feeling of action is created even when the subject is static. Be alert, inquisitive, and willing to learn from the new things you see.

The world of television is very young and very exciting. Nobody can predict the forms it will take as it continues to grow and mature. But one thing seems certain–as a visual medium it will always need the perceptive eyes of good photographers to help create its images.

Keep it simple

In any TV shooting you do, there's one guiding principle to follow at all times: KEEP IT SIMPLE. Simplicity is an essential element of television for a basic physical reason–the relatively small size of the television screen. The pictures you shoot must be clear and uncomplicated. They should contain a minimum of detail–no more than you need to express the picture idea. Also, you should limit yourself to just a few distinct tonal values. Otherwise, when the picture is reproduced electronically on the television screen, the subject may be hard to recognize and the action difficult to follow.

Along with small screen size, there's still another reason why simplicity and clarity are so important. This reason is the poor quality of the image on many TV sets. With a good set properly adjusted and in an area where reception is good, the TV image can be clear, sharp, and capable of recording a wide range of tonal values. But many sets are not operated under these ideal conditions. Your pictures must be simple and clear enough to come through even if the set is not tuned to perfection or the reception is poor.

The pictures below demonstrate this principle of simplicity and how to apply it in television. Picture 1 is a shot of an executive at his desk. A medium close shot, it includes a number of items on his desk top–an ashtray, pencil holder, cigarette lighter, papers, stapler, etc. For a picture projected on a *movie screen,* you might include a variety of details like these for atmosphere or because of what they tell about the subject. In a large, projected image of good quality the details would "read" clearly enough.

But notice how confusing and hard to see the same picture becomes when it is seen in small scale [Picture 2] as on a *television screen.* Now it's difficult to identify the objects. [The proportion between Picture 1 and Picture 2 is about the same as that between a 70-inch-wide movie screen and a 27-inch television screen.]

For television, Picture 3 illustrates a much better way of handling the same subject. Here we've moved in for a tighter close-up, and have reduced the props to a minimum needed to tell the story–a telephone, pad and pencil, portions of an ashtray and desk calendar, and just a suggestion of desk top and paneled walls. Notice how much better this composition holds up even when reduced to small size as in Picture 4. We see it much more clearly than the composition in Picture 2, with its mass of detail.

Remember our basic principle–KEEP IT SIMPLE–and apply it in composing, lighting, and shooting for television.

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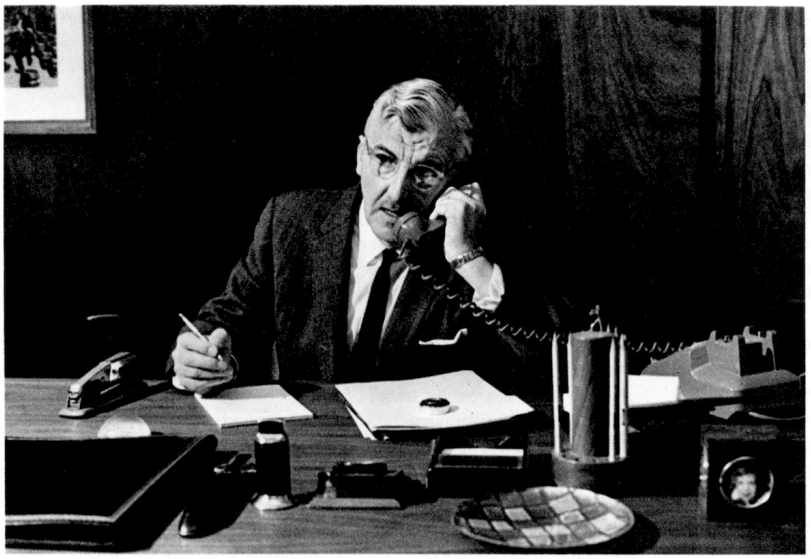

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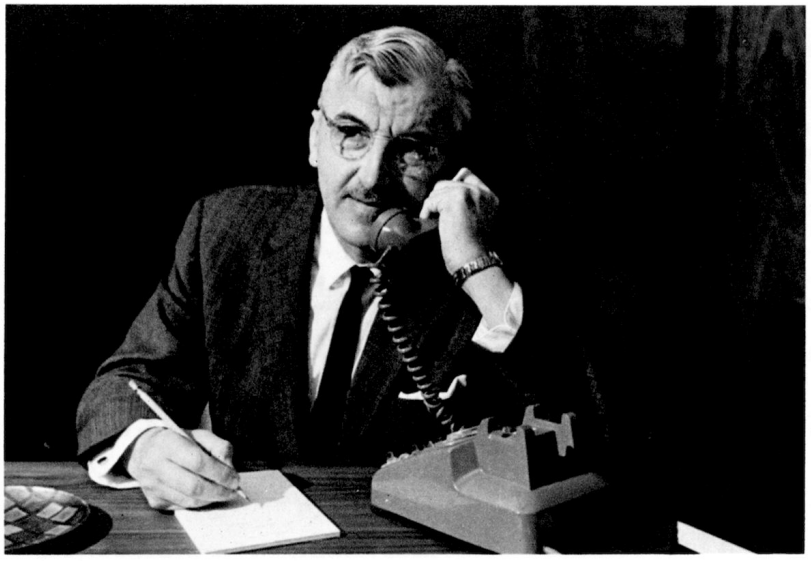

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What you need

To shoot movies for television, you must use a 16-mm or 35-mm camera. Eight-millimeter film simply is too small to produce an image of sufficient quality for television. Many of the documentaries, newsreels, educational and experimental films–and some of the commercials–you see on TV may have been shot with a 16-mm camera. But the majority of commercials and filmed feature productions are made with 35-mm equipment. Therefore, the first practical step in shooting anything for TV is to find out whether 16-mm film will be acceptable, or whether you must shoot on 35-mm.

With some careful shopping around, you probably can find a good used 16-mm camera that won't cost as much as a brand-new 8-mm model with all the latest features. If you intend to take up photography for television in a serious way, a good 16-mm outfit is a worthwhile investment. However, another possibility is to rent the necessary camera and other equipment. In larger cities, there are supply houses that specialize in renting motion-picture cameras, lenses, lighting equipment, sound-recording equipment, etc. You may also be able to rent 16-mm equipment from a local photo dealer.

If you work on a movie that must be shot on 35-mm film, rental is likely to be the only practical solution. Unless you can set yourself up as a film-producing company with capital to invest in cameras that cost many thousands of dollars, you will need to borrow or rent the equipment. The movie-equipment rental houses mentioned above are your best source.

If you are accustomed to shooting silent home movies on 8-mm or 16-mm film, you may think of 16 or 18 frames per second as the standard shooting and viewing speed. However, for all professional motion-picture photography *24 frames per second is the standard*. If you have any hope of getting your film shown in a theater or on TV, you must shoot it at 24 frames per second. The reason for this is that professional projection equipment is set up to run at 24 fps. [This speed is needed to get good-quality sound when an optical sound track is used.] If you shot your film at 16 or 18 fps and then projected it at 24 fps, the action would be too fast and the movements too jerky.

An adequate selection of lenses [or a first-rate zoom lens] is essential for TV photography. Long lenses, or zoom lenses that give you a telephoto effect, are especially important because you'll often want to tell your story through close-ups or extreme close-ups.

An experienced motion-picture photographer always tests a lens before using it on an assignment. He checks it to learn the exact field of view it covers and how sharp an image it gives [near the edges and corners of the picture area as well as in the center] at different *f* stops. As Jack O'Reilly points out, a lens designed and manufactured to work best at *f*/1.4 or *f*/2.2, for example, may not do as well when stopped all the way down.

Neutral density filters give you a good way to avoid stopping a lens down if you can get better performance with it at a large aperture. For example, if a reading with an exposure meter indicates you should set the lens at *f*/11, the use of the correct neutral density filters can enable you to shoot at a larger aperture–an *f* stop in the range where the lens performs at its very best. [For details on neutral density filters, see the section on black-and-white filters in the Technical Manual.]

For professional movie shooting–especially in color–it's important to use a set of lenses that match perfectly in the exposure they give at different *f* stops. Because of differences in optical glass and manufacturing not all lenses do match perfectly in this respect. [With stills, the difference usually is so minor it's not important.] Some movie lenses are marked in *T stops* [short for *transmission stops*] which indicate the actual light transmission at a particular setting. Two equal T-stop settings on different lenses should give you exactly the same exposure with each lens. Some camera equipment specialists can help you check lenses to get a matching set, and also will mark your lens in T stops.

An accurate, dependable exposure meter is a must for any professional motion-picture photography. You just can't afford to take chances or make guesses. However, O'Reilly suggests that you first estimate the exposure by your eye, then check your estimate by taking a meter reading. In this way you'll develop your ability to make an accurate exposure estimate by eye alone. If you've trained yourself to estimate the intensity of light, this may save the day if sometimes you find yourself without a meter or with one that's not working properly.

It's vitally important to be sure all your equipment is in good working order–especially before going out to shoot on location. If you are renting or borrowing equipment, be particularly careful to test it beforehand. You must be able to depend on your equipment to do a first-rate technical job. "These are tools to work with, not to worry about," as O'Reilly says.

Be sure to pack everything you need for a location assignment. Don't rely on your memory alone. Make out a detailed checklist of all the equipment and materials required for the job. Then, as you pack each item, check it off the list.

Film for TV shooting

For reasons of economy and convenience, most amateur 8-mm and 16-mm films are shot on reversal film. The film that runs through the camera is the one that's finally projected. In professional shooting, however, negative material is much more widely used. The negative itself is considered too precious–because irreplaceable–to handle any more than absolutely necessary. A *work print*–a positive copy–usually is made from it. The editing is done on the work print, and the edited version then is used as a guide for editing the negative. From the negative a high-quality print called a *fine-grain master* is made for safekeeping and then any desired number of *release prints*–positive copies–are made for distribution and projection. In detail, the process often is more complex than we've outlined here, if special optical effects and a sound track are added to the film. But the principle remains the same–the original negative and a fine-grain master are held in storage, while release prints are distributed for projection.

Depending on your budget and the purpose of the movie, you might choose to shoot in color or black and white. However, color-negative motion-picture film offers a similar advantage to color-negative film for still photography–you can use it to make either a color print or a black-and-white print, as you wish. Therefore, sometimes a producer will decide to shoot a movie on color-negative film even though his immediate goal is a black-and-white print, if he feels there might be a market later for a color version of the same film.

For best quality, always choose a slow, fine-grained motion-picture film when you can. However, if you are shooting a documentary film by available light or with limited lighting equipment, a fast film may be necessary. [See the moviemaking section of your Technical Manual for a list of motion-picture films.]

Composition

We have said that when you compose a picture for television you should compose it simply. Remember you are working in a medium which requires a spare, forceful statement to come across well. Fine detail, a very complex arrangement of shapes, or subtle tones are likely to be lost by the time the picture appears on the average TV screen.

Do everything possible to simplify the image. The following principles of composing [or combinations of them] can help you achieve the strength and clarity you need.

1 Use plenty of close-ups and extreme close-ups: Rely strongly on close views of your subject to get across your ideas quickly and clearly. Of course, you also may need some long shots and medium shots, too, to tell your story and provide a change of pace.

2 Avoid distracting backgrounds: This is fundamental in composing most photographs, but it's especially important in TV. Don't let too strong a design or overly busy details behind your subject take attention away from the main action. In a studio, choose a subdued background. If you're shooting on location, look for a bare wall, unpatterned drapery, or other plain surface, or use sky, water, sand, snow, etc.

3 Avoid confusing tone mergers: On TV, tonal values tend to be simplified and subtle differences are wiped out. Therefore, arrange your picture so you have strong, distinct separation between the subject and its background or other parts of the picture. Use value contrast to make things stand out boldly.

4 Pare your picture elements to the barest essentials: Don't use two props if one will do the job. Instead of showing all your subject, show just a part if this will get your point across just as well. Be ruthless in eliminating clutter, confusion, and distracting or nonessential elements.

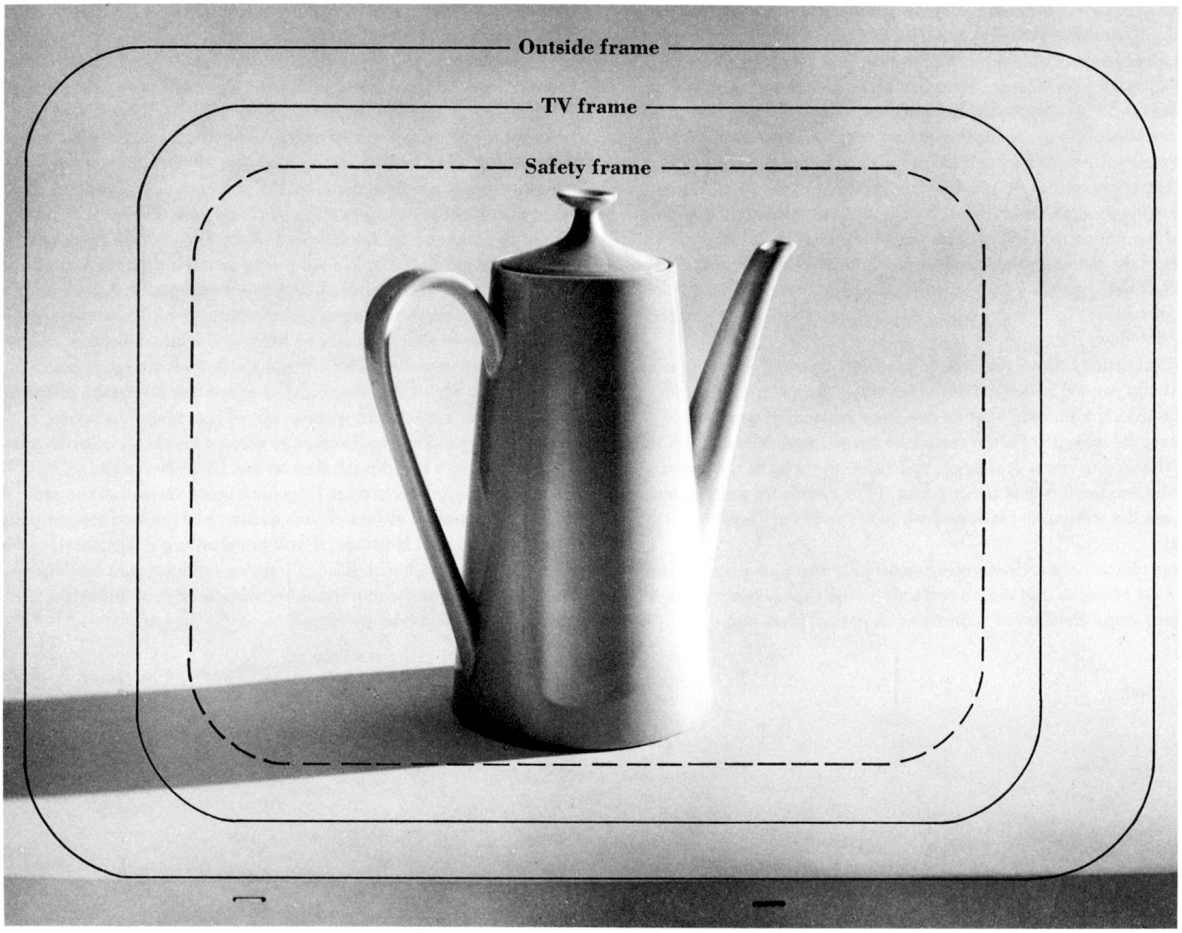
These limitations needn't restrict your imagination. In fact, they can provide a healthy discipline that forces you to see more clearly and simply.

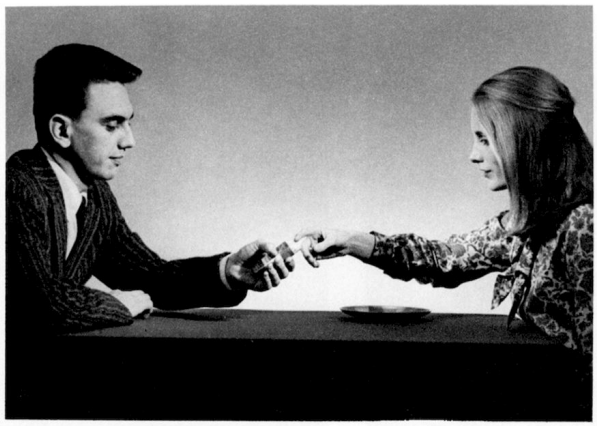
The TV screen format

Another point to remember when composing pictures for television is this: *You must keep important details close to the center of the picture area and allow for some of the picture to be cut off at the top, bottom, and sides.* Exactly how much will be cut off you can't tell. It depends on the individual set to which the picture is transmitted. Some sets show less of a transmitted picture than others. Therefore you need to allow a margin of safety or run the risk of having something essential cut out of the picture your viewers see.

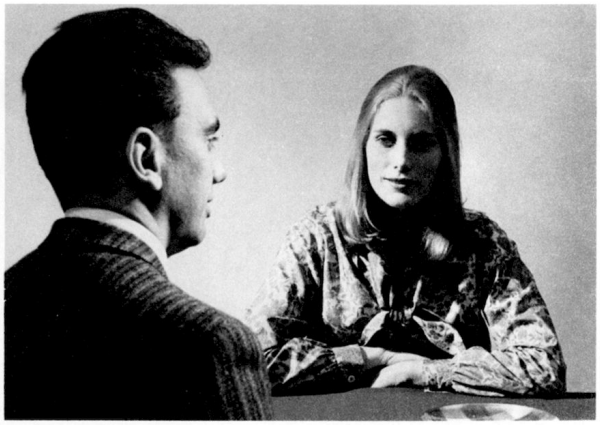
Special viewfinders are available with frame lines to guide you in composing for TV. The picture below shows what these frame lines look like. The outside frame shows how much of the subject you could include if you were shooting a movie for projection on a standard motion-picture theater screen. The middle frame [sometimes called a *TV frame*] shows the area that will be included on an average TV screen. The dotted inside frame [sometimes called the *safety frame*] shows the area within which you must keep important details [your subject's face, a product's name, titles, lettering, etc.] to be absolutely sure they won't be cut off.

To do accurate work for television, you should equip your camera with a viewfinder that has these frames. However, you can use an ordinary viewfinder if you keep the basic requirements in mind. Keep important details toward the center of the picture area, and allow an adequate margin of safety around the borders.





Wrong: This composition might be suitable for a movie projected onto a screen, but it's not a good one for television. The two people are too close to the edges of the picture–too much of them might be cut off on a television screen.

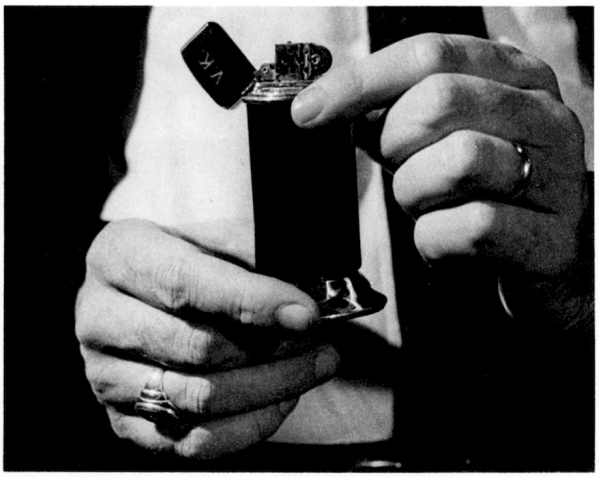


Right: This tighter composition is an improvement–there's no danger that too much of the subjects could be cut out of the picture. [If you wanted to show the man's face, too, you might follow this shot with a reverse-angle shot taken from behind the girl.]

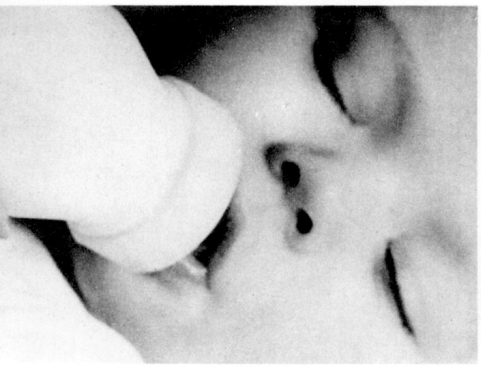
Wrong: The light-and-dark pattern of the venetian blind behind this telephone is so strong it almost overpowers it. Also, the horizontal bars tend to break up the outline of the telephone, making the picture hard to "read."

Right: A much better arrangement was achieved by photographing the telephone against a bare wall. Now the phone stands out strongly. Don't be satisfied with just any background. Find one that's right.

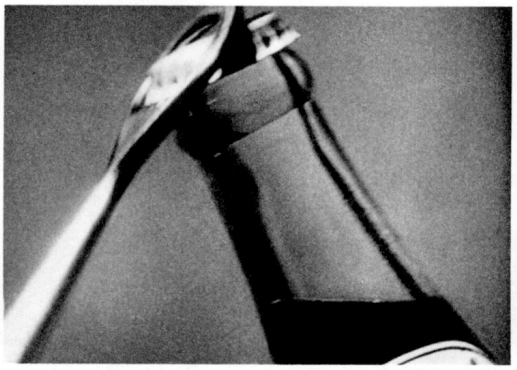
Wrong: This shot of a man demonstrating a cigarette lighter is a good example of how tone mergers can spoil a picture. The dark tones of the lighter blend in with the dark suit, so that the outline of the object is partly obliterated. On the average TV screen the tones probably would merge even more than they do here.



Right: The same lighter shown against a light-colored shirt now stands out clearly. Value contrast makes all the difference. When composing for TV, use your knowledge of values to produce a clear, well-defined image. Remember–the picture may appear on the screen for only a few seconds, so be sure your viewers can understand it at once.

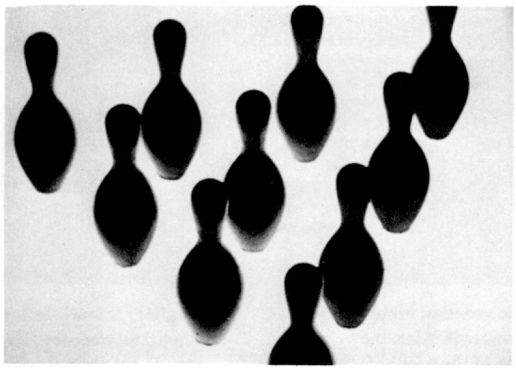


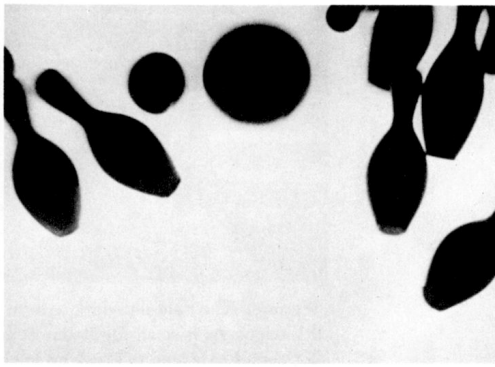
When possible, use close-ups and extreme close-ups to get your point across. This tight close-up, for example, instantly conveys the idea of a baby asleep with its bottle. Showing the surroundings or more of the baby would only have weakened the impact.
[Irving Penn, consultant for Johnson & Johnson through Young & Rubicam, Inc.]



Close-ups can emphasize a product, too, and give the viewer a sense of participating in the action. These two frames are from a sequence in a soft-drink commercial. Instead of just shooting a static close-up of the product, the photographer shows a bottle opener flipping off the cap. The diagonal lines enhance the dynamic quality of the sequence.
[These and the following photographs: Irving Penn, consultant for Pepsi-Cola through Batten, Barton, Durstine & Osborn, Inc.]

Keep your establishing shots simple. In this picture a few lights and neon signs against a black background are enough to suggest that the couple are in an amusement park at night. It isn't necessary to show the entire midway in detail.





Separate your subject clearly from the background. For a bowling sequence in a commercial, Penn used black pins against a white background and a high-angle shot. The pins make a rhythmic, clear-cut pattern at left, and we can clearly see the action of the ball when it strikes them at right.

You can make dissolves more effective if you plan the composition of the two overlapping images so they blend well. For example, in this sequence the circular shape of the girl's head is repeated by the bottle cap. One image blends smoothly into the next. Similar shape, size, lighting, texture, or color can help to give you smooth transitions in a dissolve.

Lighting

In lighting, as well as in composing, keep the limitations of the television screen in mind. Although the technical quality of television has been improved through the years in terms of sharpness and the ability to reproduce tonal values, the average TV image still is no match for a good 16-mm or 35-mm film projected on a movie screen. It can at best reproduce only a limited range of distinctly separated tonal values.

Lighting that throws multiple shadows should be avoided. The shadows will tend to merge and give you a confusing picture on television. Instead, work for simple, well-defined areas of light and dark–areas that have interesting, meaningful shapes. Imagine what your picture would look like on a poor-quality television screen. Then light it so simply and clearly the picture would be understandable even under these adverse conditions.

Use your lighting to get clean, distinct separation of the subject from the background or other details in the picture. Often a spotlight with a snoot or barndoors offers a good way to selectively illuminate your subject so it stands out against darker surroundings or to throw a bright spot on the background behind a dark subject.

Any picture tends to pick up contrast when transmitted via television. Therefore, it's often good practice to use somewhat soft illumination, particularly if you want to hold details in highlight and shadow areas. This doesn't mean you should use flat lighting. But avoid harsh contrast, hold some tone in highlights, and have your shadows open. Bouncelight, or a mainlight plus generous fill from a large flood often is good for this purpose.

Soft, bland lighting may not always be suitable, however. Sometimes you may want strong lights and darks for their emotional force, or you may want to bring out the texture or sparkle of an object. You can achieve these effects *if you keep your basic value scheme simple.*

Irving Penn, for example, often likes to work with a combination of white, black, and gray. He may use strong sidelighting on a face –which gives him his white and black–against a gray background. But he lets the black go good and black, setting off the white and gray by contrast.

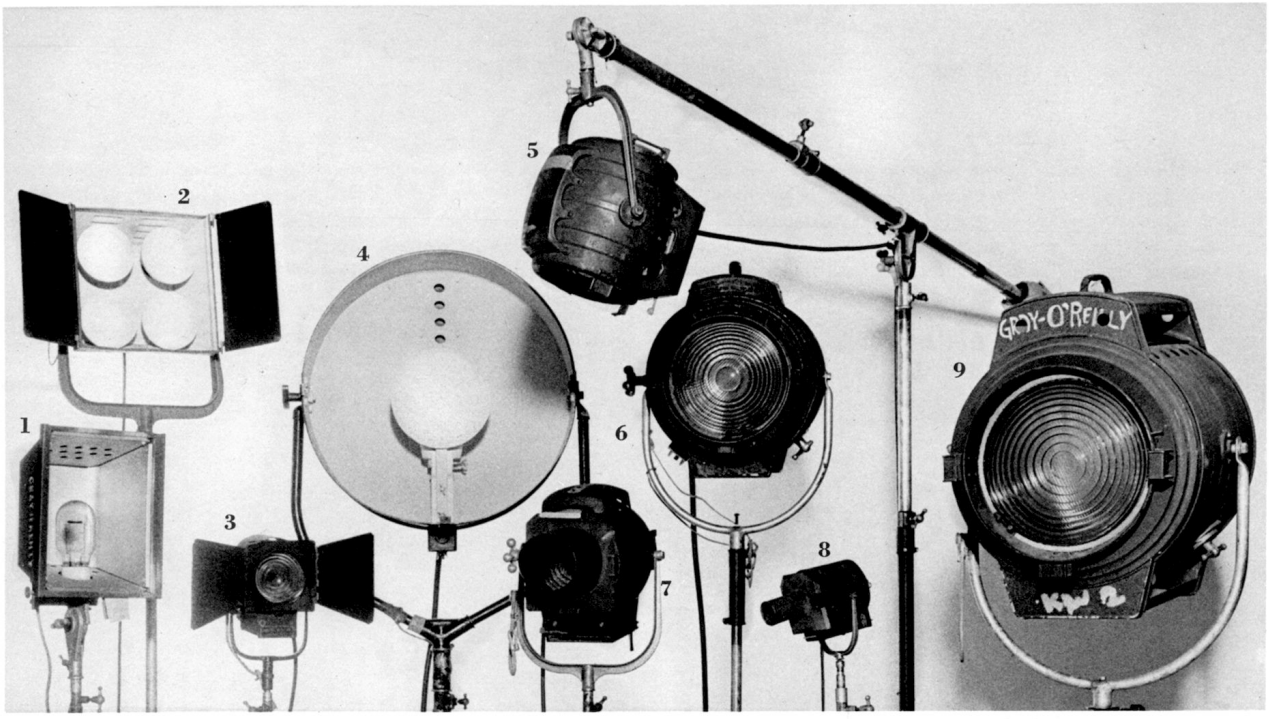
On the following pages we'll show examples of these different methods of TV lighting.

Lighting equipment

Successful motion pictures for television have been shot with the simplest of lighting equipment. The trend–particularly in news and documentary films–is toward the use of available light or simulated available light. In commercials, too, a natural effect often is sought. For these purposes, the basic movie lighting equipment discussed in the previous lesson may serve you well.

However, there is a great variety of specialized professional movie lighting equipment available, too. For some jobs it is essential that you use this equipment. Although you may not decide to buy any professional units, you may want to rent or borrow them. To familiarize yourself with some of the important types of professional movie lighting equipment, see the illustration and caption below.

Professional movie lighting equipment



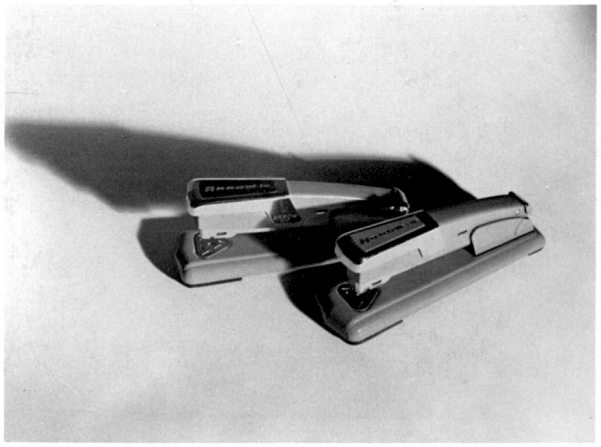
1 A 750-watt half broad gives a moderately wide beam and often is used for fill.
2 This Color Tran unit uses four reflector photofloods or spots. A voltage booster raises the wattage of each light five times. This unit is very useful for location shooting where only limited electrical power is available.
3 A 300-watt spotlight with barndoors makes a good accent light.
4 This 2,000-watt conelight provides a very broad beam useful for fill-in illumination.
5 A 750-watt keglight on a boom can be adjusted to give a broad, floodlight-type of beam or a narrow spotlight effect. It's most often used to toplight or rimlight a subject.
6 This is a 2,000-watt keglight, often used as a mainlight or a powerful accent light. Its beam is adjustable for flood or spot effects.
7 For a small accent, a 750-watt keglight with a snoot often is used.
8 For even more precise placement of accents, a small "inky dink" spotlight with a snoot is good.
9 A 5,000-watt spot-flood like this is used for large sets.

Some basic pointers about TV lighting

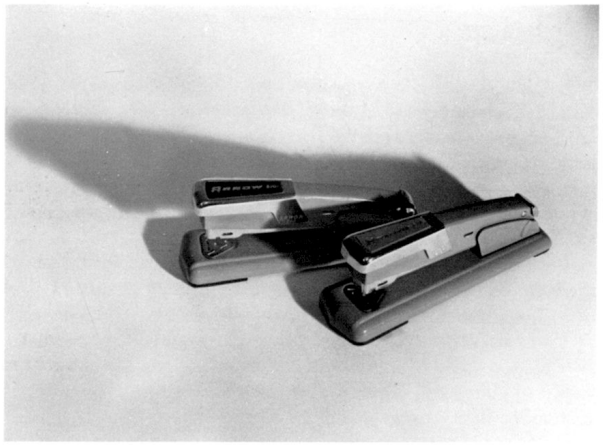
In the early days of television, a common practice was to light most subjects as flatly as possible because it was believed that only very low lighting contrast would reproduce well. Light was poured into a scene from a number of units, practically wiping out all trace of shadows.

Today, this is no longer the case. In commercials, feature films, documentaries, and other films for TV, varied and interesting lighting effects are used–and come across well on the screen. You should be constantly aware of TV's tendency to increase contrast, and the need to light your subject simply. But you still have freedom to use your imagination, as the accompanying pictures illustrate.

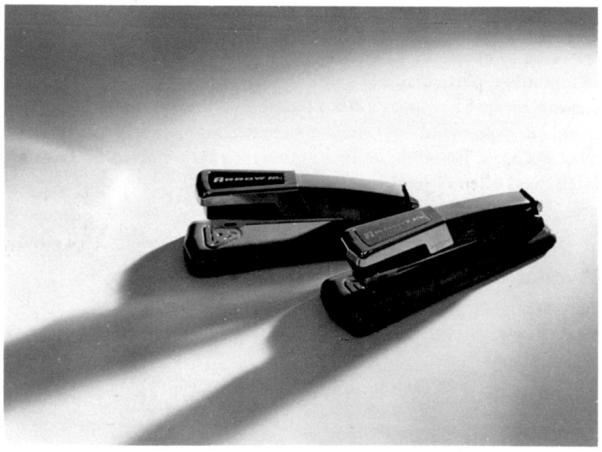
1 Soft lighting: A softly lighted subject usually is easy for television to reproduce well. The gentle modeling of bouncelight indoors, as in this picture of two staplers, or diffused daylight or open shade outdoors often is a good choice. But you aren't limited just to very soft lighting, as we'll demonstrate.



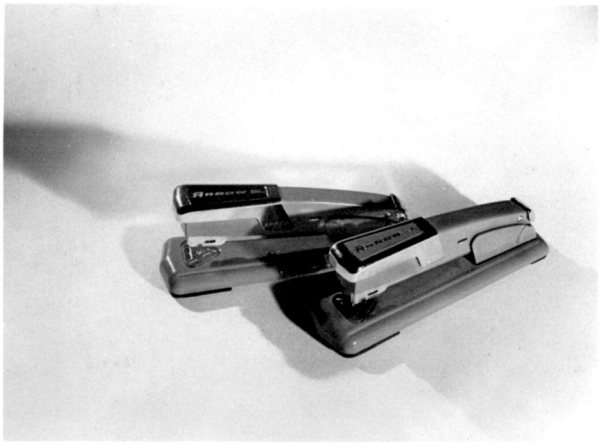
2 Poor: Let's say you want something more dramatic than bouncelighting. Here's a way *not* to do it–the illumination [from one spotlight low and to one side] is too contrasty, and the dark shadows will go even blacker on TV. The placement of the shadows is poor, too. The cast shadow from the stapler at right falls on the other stapler and tends to break up its shape.



3 Better: We've improved things by adding a fill-in light close to the camera, giving more open shadows. However, the cast shadow falling on the stapler at left still is objectionable.

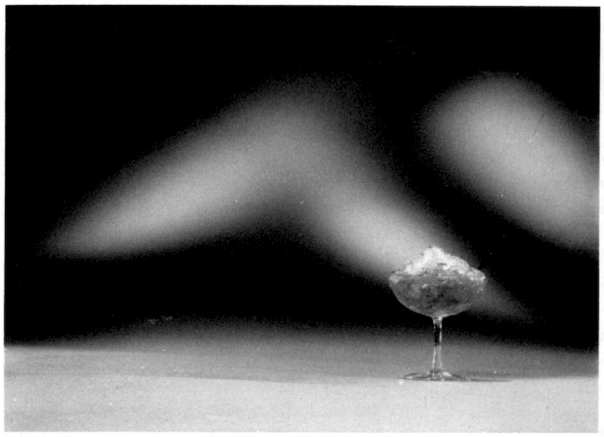


4 Best: Moving the spot behind the subject and to the right throws the shadows toward the camera, strengthening the feeling of depth. It also removes the cast shadow from the stapler at left and defines both staplers more clearly. Watch the position of shadows, and remember that they tend to appear darker on the screen.

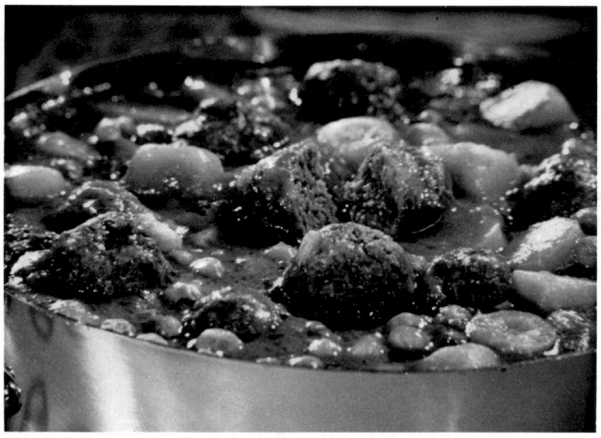


5 Double shadows: When adding a fill-in light, be sure you don't make it too strong or place it in a position where it throws visible shadows of its own, as happened here. The effect is choppy and confusing.

Subject with value contrast: Here's another good example of relatively soft lighting, from a commercial by Jack O'Reilly. The shadows are open and full of detail. The value contrast in the subject itself is varied and interesting. For instance, the dark spots on the dogs and the stripes on the boy's shirt add strong accents of black. But most of the picture is in tones of gray that are easy for TV to reproduce.
[Courtesy McCann-Erickson for National Biscuit Co.]



Patterned background: You can make a blank background more interesting by creating a soft pattern of light and dark on it, as O'Reilly did here. The irregular-shaped highlights were produced by three spotlights with barndoors tilted at various angles and partly closed.
[Courtesy the Zakin Co.]



Sidelighting for sparkle: Sometimes you'll want to bring out the sparkle and texture of an object with sidelighting, as O'Reilly did in this close-up of beef stew. He used overall illumination from floods to keep the shadows open, and arranged a number of small spotlights with snoots to create highlights on the surface of the stew.
[Courtesy Young & Rubicam, Inc., American Home Products Corp.]

Strong, simple lighting: These three pictures are good examples of the simple black-white-gray lighting that Irving Penn often uses in TV. The background is a middle gray. Strong frontlighting without fill throws part of the face in black shadow, and the illuminated flesh tones are close to white. With this type of lighting *it's essential that the shape of the shadows be interesting and that they don't obscure any significant details.*

These pictures demonstrate another important point. When lighting a person's face for TV, plan things so the illumination will be pleasing and effective if the person is to change position. Here the high frontlighting enabled the girl to turn to her right, face the camera, and turn left without having bad shadows obscure her face. Rehearse the action before you shoot, and then correct your lighting if necessary.
[Irving Penn, consultant for Pepsi-Cola, through Batten, Barton, Durstine & Osborn, Inc.]

Planning and shooting a commercial

Television is a multiple medium–combining pictures, words, music, and sound effects. To put these elements together into a finished commercial calls for the cooperative effort of many people–agency representatives, copywriters, art directors, film crew, sound specialists, lab technicians, and other specialists. To succeed in this field you must be able and willing to work as part of a team.

It's also essential that you put photography into its proper perspective. The photographic aspects of making a filmed commercial are vital, of course. But remember that they are only a means to an end–*getting across the sales message of the client.* Just as in still photography for advertising, you must devote your imagination and technical skill to this end.

With these important points in mind, let's take a broad look at some of the procedures and problems you may encounter in filming commercials for television, and see how you can best apply your knowledge and ability. Then we'll study some actual commercials in detail to learn the thinking behind them and how good photography helps make them successful.

Types of commercials

The approaches and styles used in commercials vary widely. They range from a direct, literal "hard-sell" approach to humor and fantasy. They may use filmed footage of "live" subjects [real people and objects], animated cartoons, and art work, or a combination of these. The field is continually changing, and if you are interested in breaking into this kind of work you should carefully study the commercials currently appearing on your television set.

Although there are no hard-and-fast categories of television commercials, most can be roughly classified into one or more of four basic types–*dramatic, demonstration, comparison,* and *mood or symbolic.*

Dramatic: This type of commercial is a miniature story with a cast of characters [usually not more than two] and a simple plot. Often dialogue is used. The story provides entertainment and human interest, but its main purpose is to dramatize the benefits of using a particular product or service. For example, an unpopular boy changes to a certain brand of hair tonic and gets his girl, or a busy executive finds that renting a car at the airport saves him time, trouble, and money.

Demonstration: Here the emphasis is on *the product itself in use.* As a realistic, convincing medium for visual demonstrations, television is unsurpassed. Typical demonstration commercials might show how a detergent cleans stubborn dirt, a raincoat repels water, or a cake mix produces a delicious cake.

Comparison: One of the most vivid ways to use the visual medium of television is *by showing a comparison.* This can be done with "before" and "after" pictures, with a side-by-side comparison of one product with another, or by comparing their results or action–the mileage delivered by two gasolines, for example, or the speed of two brands of pills in curing a headache.

Mood or symbolic: Rather than emphasizing the product itself, this type of commercial *emphasizes an emotion or mood associated with the product.* Its purpose is to create a favorable state of mind in the viewer and make him receptive to the direct sales message. For example, the commercial might convey the feeling of freedom and power given by a new car, or suggest the health and energy that using a certain brand of breakfast food gives. The sales appeal itself usually is very brief and simple in this type of commercial.

Using a storyboard

Most television commercials are worked out in the form of a *storyboard* before they are photographed. A storyboard consists of a sequence of panels or frames containing an artist's visualization of the key scenes in the commercial. The frames are arranged in order from beginning to end. Beside or below each frame are the words that go along with the picture–dialogue, off-camera narration, and the like. Instructions regarding music, sound effects, camera work, or special effects also may be included.

In planning a commercial, a number of storyboards may be prepared–first rough ones, and then more detailed, finished renditions as ideas are clarified and refined. Photographs sometimes are used, particularly in the planning stages. For instance, a Polaroid camera can provide a quick way to make test shots as you think out the action, and anybody at hand may be used as a stand-in model. However, the finished storyboard generally is an artist's rendition. The client usually gives his approval on the basis of this finished visualization. *The final, approved storyboard is the working blueprint used to guide everyone concerned in the creation of the commercial.*

The basic plan set forth in the storyboard must be followed. If you want to depart from this plan you must get the approval of the advertising agency representative or whoever else is responsible to the client for the finished job. However, this doesn't necessarily mean there's no scope for your own imaginative contribution. Usually it will be your responsibility as a photographic expert to work out the most effective lighting and composition for each shot.

We reproduce two complete storyboards in the following pages–one for a food commercial by Bert Stern and one for a headache-remedy commercial for which Irving Penn acted as consultant. With each, we also show matching frames taken from the final commercial. You'll see some important changes contributed by the photographer, but also that the finished commercial in general follows closely the plan set down on the storyboard.

Sometimes a photographer may be called in as a consultant while the storyboard is being prepared. At this point you have a good opportunity to contribute ideas–particularly by suggesting clear, interesting ways to get the advertising message across visually. Sometimes the problem will be to find a means of adding action and human interest to a still-life subject, or to express an abstract idea in forceful visual language. In a good TV commercial, *the pictures carry the weight of the story.* The sound track is secondary. Your skill and knowledge as a photographer can be very valuable in devising photographic action that conveys the client's message.

If, as often is the case, you do not participate until the storyboard is approved, you still have a chance to apply your imagination as well as your technical skill. How can each shot best be lighted? What camera angle will be most effective? Can a zoom, tilt, pan, or other camera movement help tell the story better? How can the picture be simplified and strengthened? By the answers you find to these and similar questions you can make a significant contribution to any project.

As you see, the part you play in the creation of a television commercial can vary greatly. Once you have an approved storyboard in hand, here are some of the important decisions you may need to make, depending on the scope of your responsibility and authority.

Things to check before shooting a commercial

- Decide which shots, if any, can best be taken on location, and which in a studio. Organize your shooting on this basis.
- Scout locations beforehand. Observe the lighting and backgrounds carefully. Make notes and sketches or take Polaroid pictures as a reminder. Is it necessary to make any special arrangements, such as getting permission and a signed release to shoot on private property, or to get a police or park pass in order to use public property?
- What models, costumes, and props do you need? Be sure that everything is ready at the right time and place.
- Exactly what equipment will you need–16-mm or 35-mm camera? What lenses? Lighting equipment? Filters? Make a detailed list and check off each item to be sure you haven't forgotten anything.
- Is any special equipment required for unusual effects? For example, do you need a dolly or a substitute dolly for a particular shot? Do

you need a hose and a source of running water to simulate rain? Be sure you have any special equipment or materials you need.

- How much film do you require, and what type? Have an ample supply on hand. Allow yourself a wide margin of safety in the event that you must shoot more footage than you expect.
- How large a film crew do you require?

The size of the film crew needed depends on many factors–the length and complexity of the commercial, the budget allowed for it, and local union customs and regulations. To film a ten-second spot for a local advertiser on a small TV station, you might do most of the work yourself. But a sixty-second commercial produced for a national advertiser in New York, Chicago, or some other metropolitan area might require a rather large crew.

A typical crew for this kind of production would include the following: a producer, director, assistant director, cameraman [sometimes called director of photography], assistant cameraman, *gaffer* [the trade name for an electrician], *grip* [the trade name for the man who loads, unloads, and moves equipment], and a prop man. For more elaborate productions, other people may be required–perhaps another grip and gaffer, a makeup specialist, a stylist, a home economist [for food commercials], sound-equipment specialists, etc.

The producer makes the final decision on how many people should be hired because it is his responsibility to deliver the completed commercial at an agreed-upon price.

Time and the commercial

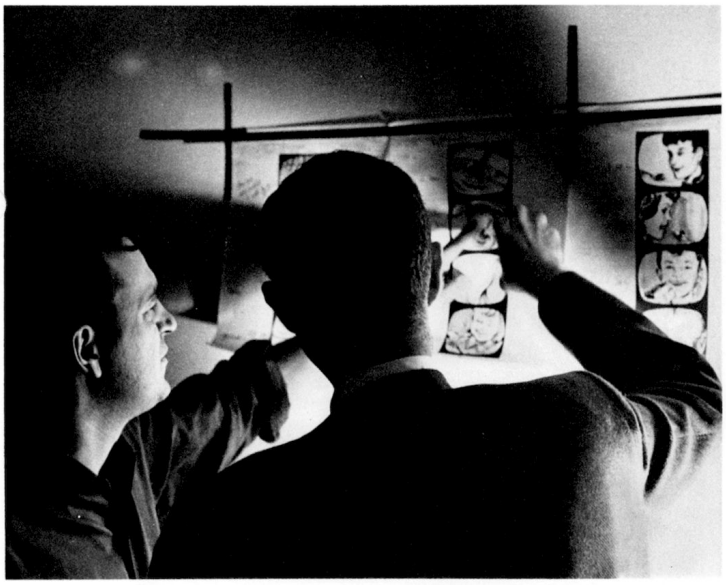
Time is a critical factor in shooting commercial films for TV. You must be prepared to work under the discipline and pressure of meeting a rigid deadline. You must make the most of every precious moment when things are set up for shooting. The cost of hiring a camera crew, models, and technical specialists, and of renting equipment, props, costumes, and other items can be considerable. Things must be kept moving swiftly and efficiently if you are to stay within the budget.

Even if production responsibilities aren't yours, you can help by keeping in mind the importance of speed and efficiency. Plan ahead. Make certain that the right things are in the right place at the right time. Check equipment beforehand to be sure it's in good working condition. Above all, *be on time yourself*. In on-location shooting, a delay of half an hour might cost thousands of dollars.

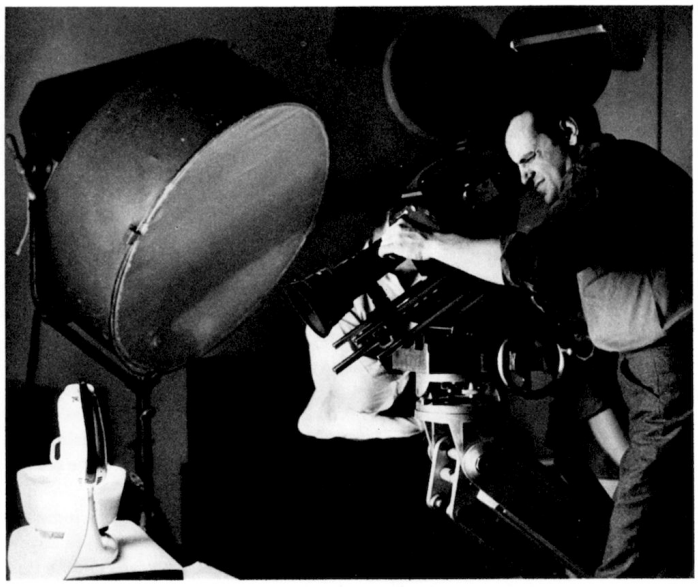
The time of the commercial itself is vitally important, too. A sixty-second commercial must run precisely that–neither more nor less. The same is true for a ten-, twenty-, or eighty-second one.

In order to provide a margin of safety in editing, and to allow portions of the commercial to be lengthened or shortened as necessary, more film usually is shot than actually appears in the final release print. A ratio of 10:1 is not uncommon, and sometimes the ratio is much higher. Of course, you shouldn't shoot wastefully. Overshooting can run up the costs over the budget. But it's cheaper to shoot a few extra feet of film at the time everything is set up than to have to reshoot later.

Also, provide yourself with "safety shots," or cutaways, even if they aren't called for in the storyboard. Look for action that is related to the main action but secondary to it, and shoot some footage of this. You may never need to use these safety shots, but sometimes a last-minute change in the commercial is called for, and a safety shot will enable you to make a transition or lengthen a scene.



The storyboard is the blueprint you follow: It's a good idea to tape the storyboard to the wall of your studio, as Bert Stern [*left*] has done here, and consult it often. As you finish filming each scene, cross off the frame that represents it. You don't have to shoot the scenes in sequence–plan to shoot them in the order that is most convenient from a production standpoint. For example, shoot all location scenes at the same time and all studio shots at another time. They can be assembled in correct order during editing.



Rehearse your shots carefully: Work out your lighting and composition as perfectly as possible before you expose any film. If you are using any camera movements, rehearse them. Here Stern is checking a slow zoom into an electric mixer that will be churning a cake batter [for the "Devil's Mystery" commercial shown on the following pages]. Rehearse the start and end of a zoom, pan, or tilt. If you are using people, have them go through their actions until they can perform them without hesitation.

'Devil's Mystery': storyboard for a food commercial

Reproduced here is the complete storyboard for "Devil's Mystery," a sixty-second commercial for a national brand of cake mix. This is the final, approved storyboard as it was given to Bert Stern to put on film. In many ways it is typical of most storyboards used in television, and therefore is worth your careful study. First, let's analyze the storyboard itself. Then, on the following pages, we'll show frames from the final release print.

The storyboard is made on sheets of storyboard paper. In this example, the illustrated panels or frames run in sequence down the left side of each sheet. At the right of each frame is a panel containing *video* instructions–directions regarding camera work, photographic action, opticals, and other visual aspects of the scene. The panel also contains the *audio* instructions–it gives the music, sound effects, dialogue, narration, etc. Thus anyone working on the film can tell at a glance what is required for each shot, and what will be included in the sound track accompanying it.

The arrangement of frames and video and audio directions may be different on other storyboards–for instance, the audio and video directions might be included under each frame, or the video might be on one side of the frame and the audio on the other. Sometimes no special video instructions are given, but only the audio. A separate script containing the audio and video material also may be prepared, but the complete storyboard including illustrated frames is better to work from. Usually, a number of copies are made from the original storyboard so that everyone concerned with creating the commercial can have a copy.

The length of time each sequence is to run may be indicated on the storyboard or script before you actually begin to shoot. It's important to shoot ample *extra* footage for every sequence. This makes it possible for scenes to be lengthened if necessary during editing.

For example, suppose your script or storyboard calls for a five-second shot of a woman sipping coffee. You might begin the take as the woman is raising her cup, show her enjoying a sip [make sure this part of the action lasts for somewhat *more* than five seconds], and then keep shooting as she lowers her cup.

The purpose of "Devil's Mystery" was to sell cake mix–by showing the moistness of the mix, the smoothness of its batter, and the rich texture of the cake made from it. Basically a "demonstration" type of commercial, it also was designed to create a mood of excitement and mystery and dramatize a commonplace kitchen product. The commercial was planned to achieve these effects primarily by photography. Even without the sound track, the commercial's message would be clear. However, a touch of music at the start and end adds to the atmosphere, and the announcer's words–a close counterpart to what is shown on the screen–emphasize the key point that this product makes delicious cakes because of a special shortening in the mix.

Notice the simplicity of this commercial–everything is told with close-ups or extreme close-ups. This has a number of advantages–it makes the pictures easy to "read," it emphasizes the richness of the batter and the texture of the cake–key points in the advertising message–and the close-ups require only a small, inexpensive setup for shooting.

Notice also that a great deal of action and movement is indicated–even though most of the frames show only objects. Just as in any movie, things must happen in a television commercial. A static image quickly becomes boring to the viewer.

In Frames 1, 2, and 3 the batter flows from the blades. In Frame 4 the batter is poured into the pan and makes interesting folds. In Frames 10, 11, and 12 a spoon is pressed against the cake mix to demonstrate its moistness. In Frame 14 a boy eats a slice of cake with evident enjoyment.

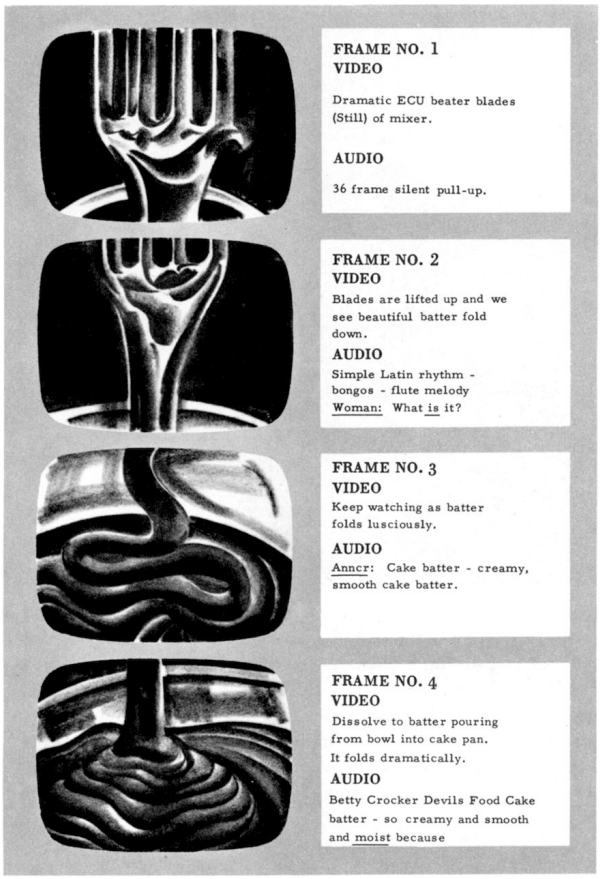
When the subject itself doesn't move, the camera can supply movement. Notice that the camera zooms in for Frame 5, and then zooms out for Frames 6 and 7. Another zoom is used in Frame 12, to bring the viewer in close to the impression made by the spoon, and a zoom again is used in Frame 17 to emphasize the label. Pans, tilts, and other camera movements can serve much the same purpose–to add motion to an otherwise static scene, and to call attention to an important aspect of the subject.

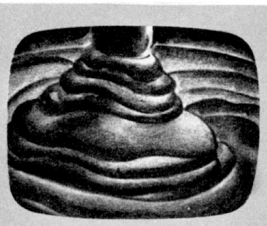
Notice, also, the use of opticals. Rather than use the abrupt effect of cuts, it was decided here to connect different takes with dissolves. This created a smooth, blending effect appropriate to the mood of the commercial and the creamy, smooth quality of the cake mix.

Another form of optical often used in television commercials is the *superimposition* [called *super* for short]. The super can be type, a product label, or other art work. It is added to the picture by an optical lab. Here the words "cream-in shortening" are added as a super in Frames 9 through 12, and repeated again for emphasis in Frame 15.

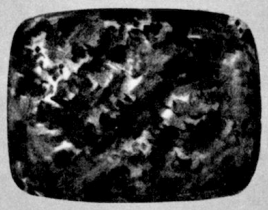
Supers are most commonly used to emphasize a key phrase, product name, or idea. While the words appear on the screen, the announcer may speak the same phrase. The combination of seeing and hearing the words can give them considerable impact. However, good commercials don't overdo supers–too many of them can become confusing or monotonous, and therefore self-defeating.

Notice, also, the use of *product identification* here. In most commercials the packaged product with its label or brand name prominently displayed appears at least once–and often more than once. In this case, the cake mix package is shown in Frames 9, 15, and 16, with an extreme close-up of the label [Frame 17] before the fade-out. Commercials often end with a shot of the label because the last thing shown on the screen tends to have strong "remembrance value." [Produced for General Mills, Inc., by Needham, Louis, and Brorby, Inc.]


FRAME NO. 1
VIDEO
Dramatic ECU beater blades (Still) of mixer.
AUDIO
36 frame silent pull-up.
FRAME NO. 2
VIDEO
Blades are lifted up and we see beautiful batter fold down.
AUDIO
Simple Latin rhythm - bongos - flute melody
Woman: What is it?
FRAME NO. 3
VIDEO
Keep watching as batter folds lusciously.
AUDIO
Anncr: Cake batter - creamy, smooth cake batter.
FRAME NO. 4
VIDEO
Dissolve to batter pouring from bowl into cake pan. It folds dramatically.
AUDIO
Betty Crocker Devils Food Cake batter - so creamy and smooth and moist because



FRAME NO. 5
VIDEO
Move in on folds which fill screen.
AUDIO
Betty Crocker's special shortening was creamed into the other delicious ingredients -- all at once.



FRAME NO. 6
VIDEO
Dissolve to cake texture filling screen...we're zooming back.
AUDIO
And this is

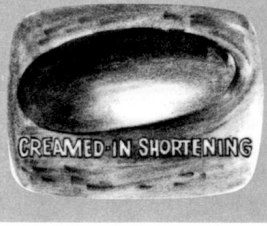
FRAME NO. 7
VIDEO
Back to see cake where slice has been removed. Cake is beautifully frosted and sits on pedestal.
AUDIO
the cake - the dark, moist Betty Crocker Devils Food Cake.

FRAME NO. 8
VIDEO
Dissolve to slice coming up into center frame as lighting becomes back light.
AUDIO
It glows with moistness and richness and freshness. The reason for this moistness

FRAME NO. 9
VIDEO
Dissolve to CU package next to bowl with dry mix in it. Super: "Creamed-in shortening" in sync.
AUDIO
is right in the mix with Betty Crocker's special creamed-in shortening.

FRAME NO. 10
VIDEO
Move in for CU bowl as spoon comes in and is pressed down on mix. Hold super.
AUDIO
Press! See? -

FRAME NO. 11
VIDEO
Spoon is removed to reveal beautiful oval impression. Hold super.
AUDIO
Moist! - the creamed-in shortening coats every



FRAME NO. 12
VIDEO
Move in on oval impression slowly.
AUDIO
delicious particle with moistness.

FRAME NO. 13
VIDEO
Dissolve to back lighted slice. Kill super.
AUDIO
And rich, imported cocoa

FRAME NO. 14
VIDEO
Dissolve to boy, about 10, who is overjoyed as he is about to receive slice of cake.
AUDIO
makes this the great-tasting Devils Food - dark, delicious and moist.

FRAME NO. 15
VIDEO
Dissolve to package. Super: "Creamed-in shortening." Cake, slice out, is on pedestal.
AUDIO
You make it from Betty Crocker Devils Food Cake Mix - with creamed-in shortening.

FRAME NO. 16
VIDEO
Move in for CU package. Lose super.
AUDIO
You should have made one yesterday.

FRAME NO. 17
VIDEO
Soft cut to ECU spoon on package.
AUDIO
Music concludes.

Daniel D.Teoli Jr.
Archival Collection

'Devil's Mystery': the finished commercial

These frames are reproduced from a release print of the finished commercial. We selected frames that match the storyboard frames on the previous pages so you can see how closely the basic storyboard was followed, where it was departed from, and how Stern worked out the lighting and composition for each shot.

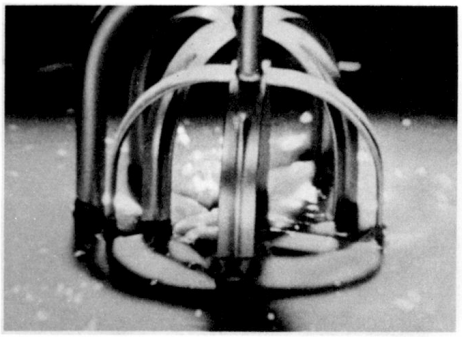
Notice that in many cases he simplified the composition even more than was indicated. It is in composing the picture that you often can make your biggest contribution. Do the shapes of things stand out clearly so they are easily identifiable? [This is particularly essential in extreme close-ups that show only parts of objects.] Are important details kept away from the edges of the frame, where they may be cut off? Have you left enough space for any supers? Will the letters become confused with background details or will they stand out boldly?

In lighting the subject you can make another big contribution. Notice how skillfully Stern has handled the lighting here. He chose a black background to set off the white utensils and the brightly lighted cake, and to help create an atmosphere of drama and mystery in keeping with the kind of cake. [For angel food cake, he might well have chosen a white background and a delicate, high-key effect.] Sidelighting brought out the texture of the mix, batter, and cake.

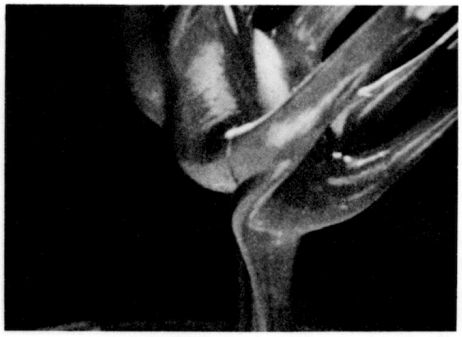
A black paper sweep provided the background. A powerful flood was used as a mainlight and a conelight as fill. To shield the lens of his 35-mm camera from flare, he cut an opening in a large sheet of foil-covered cardboard and shot through the opening. The foil-covered side faced the subject, throwing additional fill light into the scene. Although the contrast looks high in the reproductions [as it would on an average TV screen], it was much less so in the studio. Remember, your picture will tend to pick up contrast when projected, so light it accordingly.

A zoom lens used at close range enabled the photographer to move in for extreme close-ups that filled the screen with very small details important in getting across the advertising message–the cake's smooth, moist texture.

[Produced for General Mills, Inc., by Needham, Louis, and Brorby, Inc.]

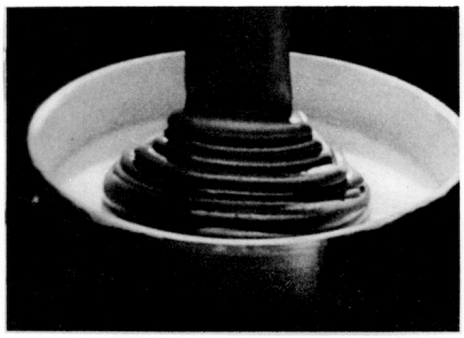


1 The commercial begins with an extreme close-up of mixer blades. Action was added by showing them in motion and then stopping.



2 As the blades are lifted, the batter flows down. It took numerous tests with the batter to get folds with the proper consistency.

3 The flowing batter makes smooth curves. The announcer is saying: "Cake batter–creamy, smooth cake batter." The video vividly matches his words.



4 A dissolve connects the previous take to this new view–a close-up of batter being poured into a cake pan. Much footage was shot to be sure of getting the batter with just the right folds.

5 Here the camera zoomed in *slowly* to reveal the folded batter in an extreme close-up. Focusing is critical at such a short distance, and therefore shots like this need to be very carefully rehearsed.

6 Another dissolve brings us to a view of the cake with a slice removed. This is a change from the storyboard–made because dissolving from batter to a close-up of cake texture might be confusing.

7 Another dissolve brings us to the removed slice.

8 Now we can move in on the texture with assurance that the viewer will recognize what he's seeing. Every shot must be understandable in itself and in relation to what comes before or after.

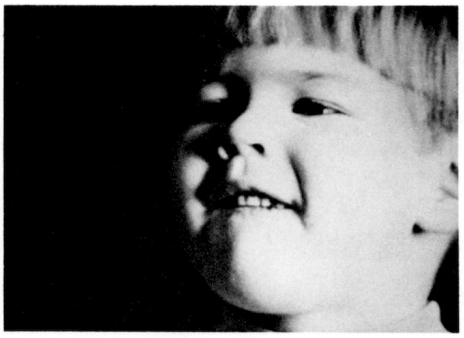
9 Another dissolve shows us a bowl containing cake mix. Stern simplified the shot from the storyboard sketch to make the bowl contrast strongly with the background. [Notice the superimposition.]

10 Sidelighting brings out the texture of the mix as a spoon is pressed down on it. The super is held for the rest of this sequence to emphasize the special ingredient of the mix.

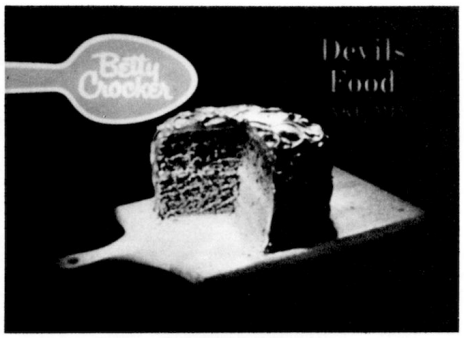
11 As the spoon is removed, the camera slowly zooms in on the spoon's impression. Again, a simple method is used to vividly demonstrate a quality of the product.

12 The zoom ends with this extreme close-up of the impression.

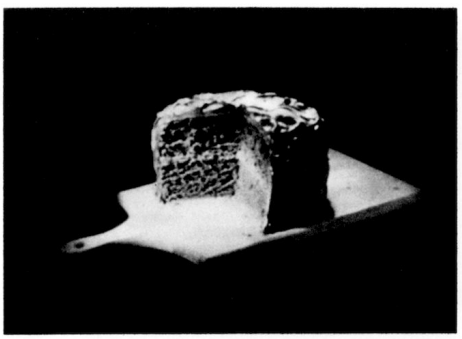
13 Here we dissolve to another view of a slice of cake. Someone has begun to eat it.



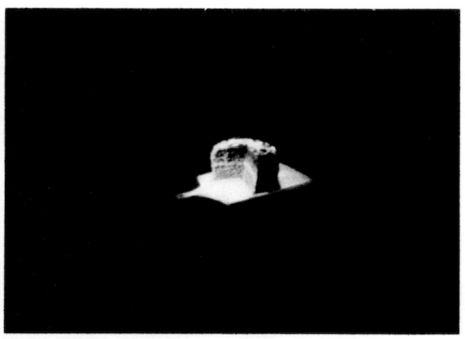
14 Now the only person to be shown appears—a child eating the cake with great enjoyment. This provides a good change from previous pictures.



15 For the final sequence, the manufacturer's label and product name are included with the cake.



16 The supers disappear. The camera begins to zoom back. On the screen the effect is that of the cake moving away from the viewer.



17 The cake shrinks until it's just a dot, then disappears. Stern zoomed as far as he could, and a lab completed the footage on an animation stand. [We explain the uses of this stand later.]

A headache-remedy commercial: storyboard and film clips

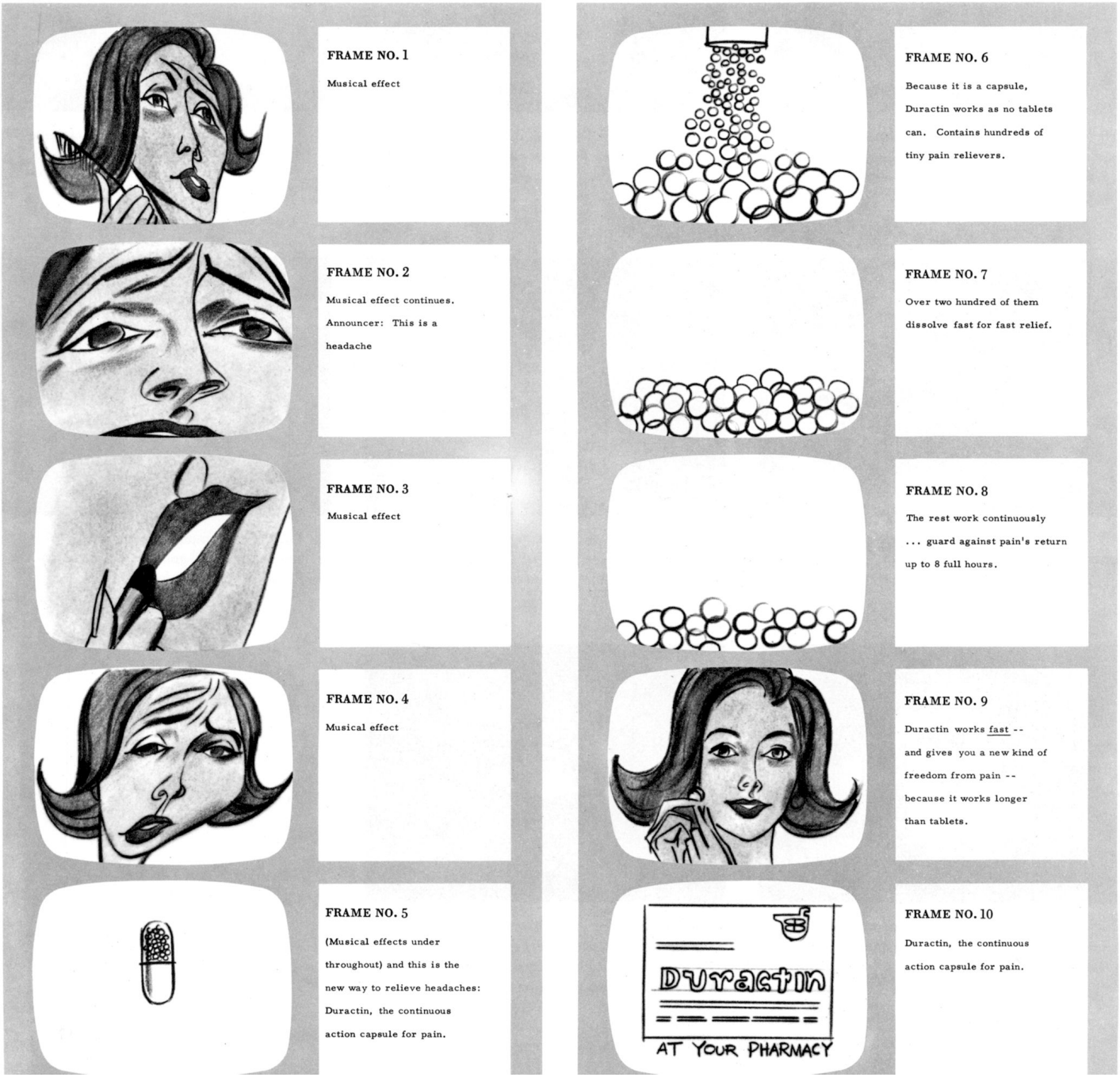
The storyboard below is for a sixty-second commercial showing the effectiveness of a headache remedy, and the photographs on the facing page are reproduced from frames of the final film. Irving Penn participated as consultant in creating it.

The problem was to find an interesting way to dramatize the action of the remedy–a capsule containing tiny grains that dissolve at different rates when swallowed, thus giving longer-lasting relief. Penn devised the following solution: Make an oversize tube to represent the capsule and fill it with balls about one inch in diameter. Pour the balls out on a table, filming the action in slow motion. To show the selective action of the balls, remove some, shoot the remainder, remove some more, shoot those that are left, etc., until none remain. These sequences would be joined to each other by dissolves, thus suggesting the passing of time and symbolizing what takes place in the stomach when the capsule is swallowed.

It was also decided to indicate the pain of headache by distorting the image of a woman's face. Penn planned to do this by shooting the woman's reflection in a curved mirror. By changing the position of her head in relation to the mirror the distortion could be controlled.

Again, notice the use of close-ups and extreme close-ups to tell the story. The woman's face, twisted with the pain of a headache, makes a strong opening sequence. The shots of balls falling out and disappearing offer an unusual and interesting way to suggest an action that couldn't be shown realistically. The woman–her headache gone–is reintroduced, and then the commercial ends with a close-up of the headache-remedy package for strong product identification.

Like "Devil's Mystery," this commercial has the qualities of concentration, simplicity, and variety that a good television commercial should have. Nothing is superfluous; everything is to the point. The images flow in a logical but varied and interesting way.



The final commercial

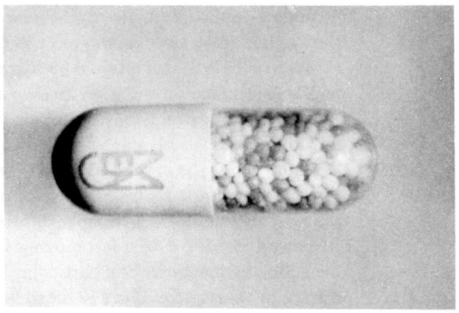
Here are selected frames blown up from the commercial. They are numbered to correspond to the frames of the storyboard. Notice that the storyboard is closely followed, but that the photographer has made improvements in composition, and that it was decided to add supers to some of the frames.
[Irving Penn; consultant for Duractin through Foote, Cone & Belding]

1 A tight close-up of the woman's face starts off the commercial. Notice the very simple lighting and limited number of values.

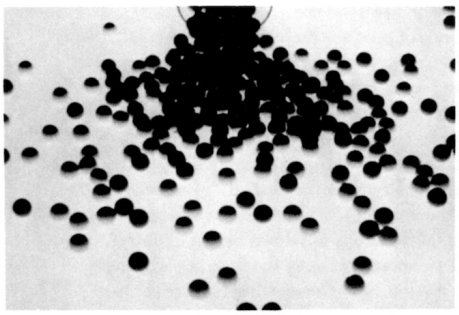
2 Here Penn shot into a curved mirror. By changing the position of the head in relation to the mirror, he controlled the distortion for this and the next two frames.

3 More grotesque distortion suggests that the headache is becoming worse.

4 Here we move in closer to emphasize the forehead. On the screen the image throbbed and quivered, vividly suggesting the sensation of a headache.

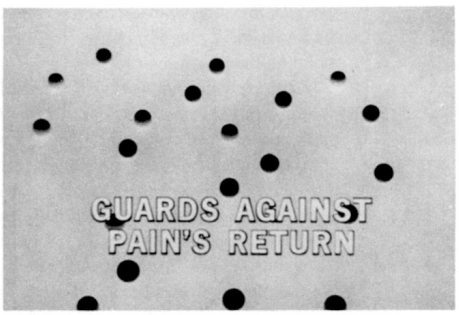


5 Now we cut to a close-up of the capsule. To fill the horizontal frame more fully, the capsule was shot on its side rather than standing up as in the storyboard.



6 The falling balls were photographed in slow motion. Nothing is included to indicate their real size–about one inch in diameter.

7 After the balls rolled out on a white surface, some were removed and the remaining ones were photographed. A super was added to emphasize the advertising message.



8 More of the balls were removed before this take was made. These sequences in which the balls disappear were connected with dissolves.

9 Now we go back to the girl–this time relaxed and content with the relief. For good continuity, the lighting is the same as before.

10 The commercial ends with a close-up of the product, for identification and "remembrance" value.

Special effects

A knowledge of the special effects you can achieve with a motion-picture camera can be very valuable in shooting for TV. Special effects sometimes can help you tell your story more clearly, or deliver an advertising message in an unusual, attention-getting way. Some of these effects require elaborate equipment, but a number of them are easy to achieve by rather simple methods, as we'll explain.

Slow and fast motion: These were described in the previous lesson, but we want to remind you of them here because they have so many good applications in commercials and other TV films. For example, to increase the apparent speed of any moving object–say a car driving along a highway–shoot it at a camera speed of fewer than the normal number of frames per second. This method is especially helpful when you want the moving object to go slow so you can more exactly direct its movement, yet have it appear to be traveling fast on the screen.

A slow-motion sequence can be used to catch the viewer's eye and show action in an unusual way. For instance, if you wanted to emphasize the freedom allowed by a brand of sports clothes, you might shoot some slow-motion footage of people wearing the clothes and engaging in strenuous action.

Slow motion also is good for filming a toy, model, or small-scale tabletop scene. The motion of small objects usually looks too fast and jerky when filmed at normal speed. Slow motion tends to smooth out the action and make it look more impressive.

Freezing motion: In a fast-moving film, you might want to freeze the action momentarily at a particular frame to give your viewers a chance to observe the image in detail before the film continues. You can do this by having the lab make you a strip of duplicate frames. Decide how long you want the image to remain on the screen and calculate the number of frames needed. When you get the film, splice it into the action footage at the desired point.

Single-frame shooting: A camera with a device that lets you expose just a single frame at a time enables you to get many interesting effects. You can separate one shot from the next by seconds, minutes, hours, even days. When projected at normal speed, the images will blend together, thus compressing action that actually took place over a longer period of time.

The most common use for this technique is in *time-lapse* photography, in which the camera records some relatively slow-moving event–the growth of a plant, blossoming of a flower, hatching of an egg, etc. The camera is placed in position and an automatic timing device is set to make single-frame exposures at specified intervals. On the screen, the plant seems to shoot up magically or the flower to blossom as swiftly as you might open your hand. Aside from the novelty of the visual effects it can produce, time-lapse photography is a valuable tool in science, industry, and nature study for analyzing events that take place too slowly and gradually for the unaided eye to observe.

To film a subject over a long period of time you need an automatic timing device so you can set up the camera and then leave it unattended while it shoots the desired pictures. But you can use the single-frame exposure method without special equipment if the action doesn't take too long.

Reverse motion: Sometimes you may find it desirable to reverse the action in a scene. This is the case when you can more precisely control the start of an action rather than its end. For instance, you might want to show a car racing up to the edge of a cliff and stopping just in time. Instead of risking the car and driver, you could have the car start at the cliff and back up. When the action is reversed on the screen, you'll get the effect of the car hurtling toward the cliff.

With a 16-mm or 35-mm camera and any film having a double row of sprocket holes it's very simple to reverse the motion. *Simply hold your camera upside down while you shoot.* After the film is processed, cut out the upside-down sequence, turn it right side up, and splice it back into your film. When projected, the action now will be just the reverse of what it was when you photographed it. [The method won't work with 8-mm and 16-mm film having only a single row of sprockets because these would be on the wrong side when you came to resplice the section.]

Split-image shooting: This effect is often useful in television commercials and in instructional films. The frame is "split" down the middle. Two separate images–each shot at a different time–occupy different parts of the same frame. Thus the viewer can see the two actions as if they were taking place at the same time. For example, two people involved in telephone conversation with each other could be shown simultaneously for comic or dramatic effect, or you might show one man shoveling snow while a more fortunate neighbor is basking in sunshine under a palm tree.

To shoot a split-image sequence you need a camera with an accurate footage counter or frame counter, provisions for winding back the film, and a matte box. A matte box, you may remember from the previous lesson, is a special boxlike accessory that fits in front of a movie-camera lens and permits you to block off part of the film frame by adjusting sliding masks. [It can also be used for producing wipes, fades, and other effects.] The basic procedure is as follows.

Adjust the matte box so that only half the picture area will be exposed. Film the action that you want to appear in this area. Wind back the film to the same starting point as before and adjust the matte box to block off the exposed half of the film. Now run the film through a second time, adding the action you want on the second half of the picture area.

Simulating rain and snow: A movie photographer can't always wait for the right weather conditions. You might have to do a snow scene in summer or a rain sequence on a sunny day. But with a little ingenuity and a few good props you can create your own weather.

For a snow scene at any time of year, have your actors dress in winter clothing, sprinkle artificial snow on them, and photograph them close up so that no out-of-season details show. You might create a wintry background by setting up some pine branches behind them and covering the branches with artificial snow.

An ordinary garden hose can produce realistic "rain." Actually, this rain may be more convenient than the real thing because you can turn it on and off at will and don't have to worry about keeping your equipment dry. Just as with snow scenes, the right costumes and props will help make the effect more vivid and convincing. Have your actors wear raincoats, rubbers, rain hats, etc., or carry open umbrellas. Adjust the hose nozzle to give the kind of "raindrops" you want, and be sure to keep the hose and its nozzle out of camera view. Point the hose upward so that the drops fall down on your subject. If it's a sunny day, move into an area of open shade so the lighting will be consistent with the weather. For the most realistic effect, wet nearby foliage and pavement, and make some puddles. If you stick to medium shots and close-ups you should have little difficulty in creating a convincing illusion.

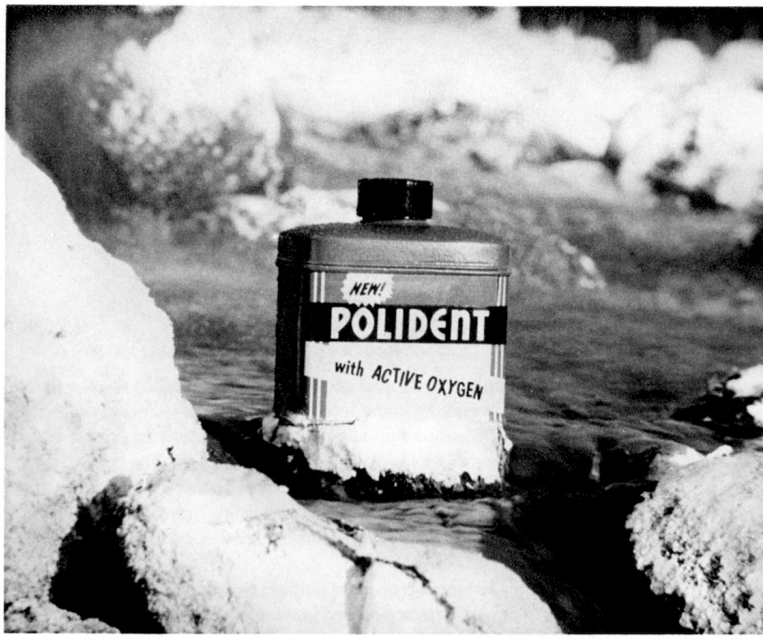
How to create night effects: With *black-and-white film* you can create night effects in the middle of the day by placing a dark red filter over the lens and underexposing. [The exact degree of underexposure depends on the film used and effect wanted. It's best to experiment before shooting any final footage.]

If there are any white clouds in the sky, these will tend to stand out in bold contrast to the dark sky. This effect sometimes looks like bright moonlight, but more often destroys the realism of a "night" shot. Therefore, it's usually best to shoot on a day with a clear sky that will go dark overall. If possible, arrange to shoot when you can use sidelighting with long, dark shadows to heighten the nocturnal effect.

With *color film* you can get moonlight effects during daylight hours by shooting an indoor film outdoors without a conversion filter, and underexposing somewhat. The overall blue cast simulates moonlight on a bright night. Daylight film and a blue filter or a blue gelatin over the lens can produce a similar effect.

To create rain for a raincoat commercial shot on location, Jack O'Reilly couldn't wait for the right weather. Instead, he enlisted the aid of a small-town fire department and had them direct water from a fire hose into the air as shown in the picture at left. [An umbrella was used to protect the camera from stray water.] The result is shown in the picture at right. You can achieve a similar effect on a smaller scale with a garden hose. Be sure to keep the hose out of camera range, and compose tight enough so that the falling water covers the whole picture area.
[Photographs courtesy Ellington and Co. for Celanese Corp.]

For a commercial made in the summer, O'Reilly needed a winter scene that suggested the cool, fresh qualities of a dentifrice. He posed his model against a background of pine branches covered with artificial snow. His model wore winter clothing and her hair was sprinkled with artificial snow, as shown at left. To dramatize the product, O'Reilly wanted to show it in a wintry stream. He created one by arranging some rocks, coating them with snow, and running water [from a hose] past them. The result is shown at right. It's easy to get special effects like this if you can limit yourself to close-ups and extreme close-ups.
[Photographs courtesy Grey Advertising, for Block Drug Co., Inc.]



Animation

Animation has a special meaning in television and motion-picture photography. It may refer to giving motion to art work–like the familiar animated cartoon characters of movies and TV, diagrams that move, or letters that expand, contract, or shift around to spell different words, etc. This kind of animation is created by an artist. To make an animated cartoon, for example, he draws a number of pictures, with just slight changes in the subject's position each time. The pictures are photographed on motion-picture film in proper sequence, a frame at a time. When these are projected, the illusion of motion is produced.

Of more interest to photographers is another type of animation–*giving motion to real objects that normally are motionless*–for instance, making the cap of a bottle pop off seemingly by itself, having a fork and spoon do a dance, showing a coat that moves its arms as if a human being were inside it, etc.

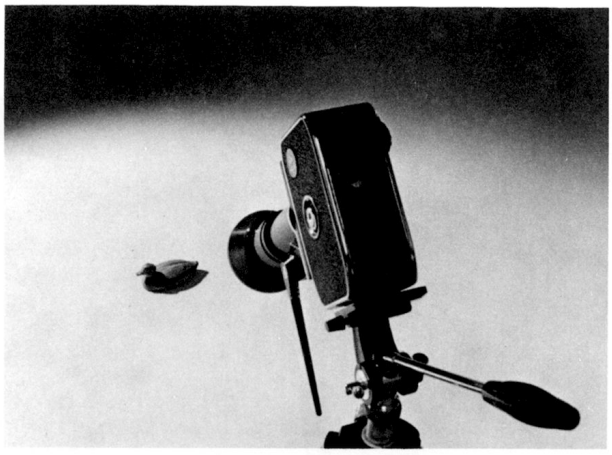
These effects also are created by photographing the subject a frame at a time. In between frames you slightly change the subject's position. When the film is projected, the subject will seem to come alive on the screen and perform lively antics under its own power.

Any movie camera that permits single-frame exposure can be used for animation. Set the camera securely on a tripod and *be sure you don't change its position during the shooting of a sequence.* Arrange your subject, expose a frame, alter the subject's position slightly, expose another frame, etc., until you complete the action. The amount you should change the subject's position between exposures depends on how fast you want the motion to be. If you make marked changes between exposures, the effect will be fast motion when projected. If you change things almost imperceptibly, the motion will be slow.

Obviously, with a setup like this it's only practical to make a short, simple sequence. To get 10 seconds of running time at 24 fps you'd need to make 240 separate exposures, changing the subject's position each time. However, striking and amusing animated short sequences can be made and spliced into a longer film to enliven it.

Long or complex animated features for TV usually are shot by *animation labs.* They use a large, expensive, and elaborate piece of equipment called an *animation stand.* Basically, the animation stand is a big, vertical copying stand. The movie camera is placed above the object, art work, or still photograph to be filmed. By raising or lowering the camera, more or less of the subject is included. Very precise controls allow the platform holding the subject to be moved, thus shifting the position of the subject in relation to the camera. An animation stand makes it possible to do extremely accurate, detailed work, and to shoot individual exposures quickly and conveniently.

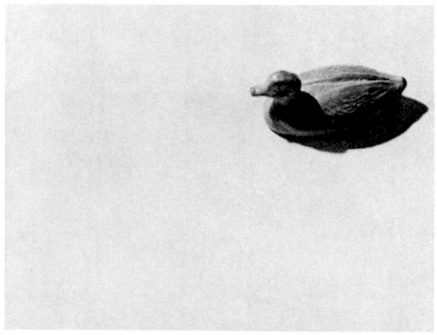
Animation offers you another way to add life to a static product. It especially lends itself to comic effects and fantasy, and allows you to humanize almost any object you wish. For example, you might create a film in which the principal character is a shoe, a chair, or a woman's hat. You might show a conflict between a nut and a bolt or a romance between two bookends. For one amusing example of this technique, see the accompanying pictures of the adventures of a pair of pliers.

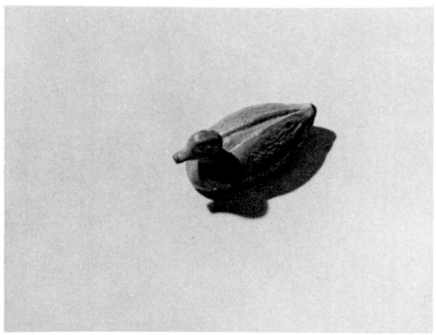


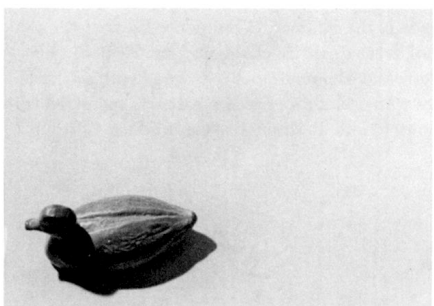
Making simple animation sequences: A setup like the one above is sufficient for making many interesting animation sequences. You can shoot the sequence with any movie camera that takes single-frame exposures. A zoom lens is convenient because of the fine control it gives you in adjusting the size of the image. Reflex viewing and focusing are also helpful–especially with small subjects. However, for the latter you could use a reflex viewing attachment and a close-up lens instead.

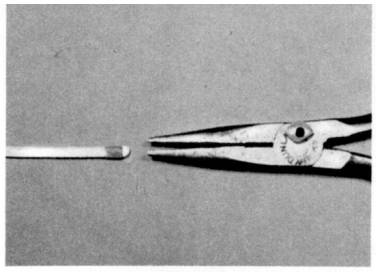
Use a steady tabletop or other surface to hold the subject. Place your camera on a firm tripod and be sure you don't accidentally jar it when making the single-frame exposures or move it between exposures.

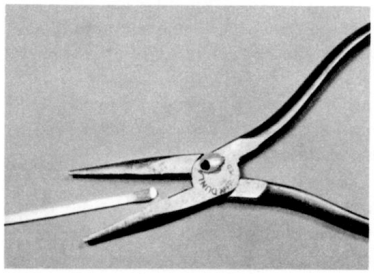
Keep the subject and background simple. Here, for example, we used a miniature duck on a surface of white paper. A single spotlight high and to the left provided the illumination. [The white paper reflected enough light into the shadows so that no fill was needed.] The duck's position was changed slightly between exposures. When the sequence was projected at normal speed, the pictures blended together and the duck appeared to swim across the screen, as these three frames from the sequence show.
[Equipment courtesy Hilgert & Gough]

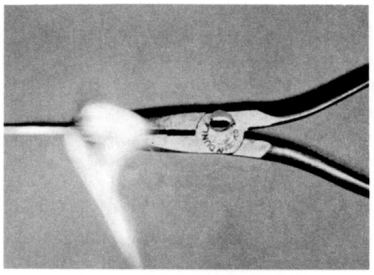


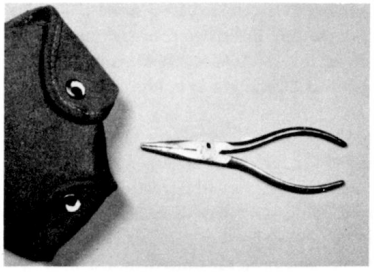


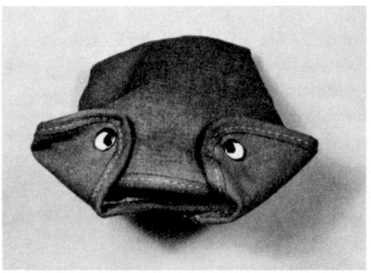


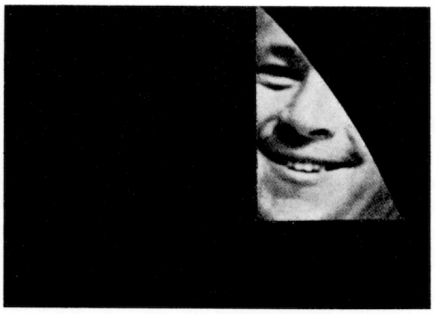












Using portions of photographs: Another interesting use of animation is to give life to cut-out portions of photographs. This is a relatively simple, inexpensive way to make a commercial, and is particularly effective for brief messages–like this one advertising a radio newscast. Here segments of photographs appeared on the screen in fast tempo, moved around, changed size, and eventually combined to form a globe. Then half the globe disappeared to allow room for the name of the program. In creating the commercial an interesting variety of still pictures were chosen and cropped to make the necessary shapes. Easy-to-read close-ups of faces, objects, and type were selected. Then different arrangements were photographed and short takes were spliced together to give a dynamic, exciting tempo. [Courtesy Trinkaus, Aron, and Wayman]

Giving personality to objects: These frames from a short animated film show how you can create an amusing story with very simple props, and give personality to inanimate objects. Painting an eye on a pair of needlenose pliers turns it into a fishlike creature. It gobbles a match, and the match explodes. Little fish sometimes get eaten by big fish, which is what happens next when the pliers unwarily swims into the open jaws of an enemy. The big fish is a cloth canteen holder with buttons converted into eyes by painting pupils on them. It's best to keep the action very simple, as was done here. If you have too many things to change each time, you'll find it difficult to animate the subject smoothly–and your job will be very time-consuming. Choose a plain background, too, so the action stands out clearly. This film was shot with the camera above the subject, using a homemade animation stand.
[Courtesy Trinkaus, Aron, and Wayman]

Creating movies from stills

Making movies from still photographs and art work is a fascinating kind of photography with wide applications. Basically, it involves shooting movie footage of a number of still pictures. Although the subject itself doesn't move, the illusion of movement can be created by having the camera zoom in and out, by panning across the photograph, by cutting to close-ups of different details within the picture, or cutting from one picture to another.

This technique is sometimes used to produce television commercials, shorts, and full-length documentary, art, and historical features. It has uses outside television, too–for instance, in making trailers [brief promotional previews of films], unusual titles and credits, and sales and training films.

Although movies from stills aren't likely to replace movies of live action for the great majority of television film productions, they do have important advantages. For one thing, they're less expensive to make. One man can go on location with a 35-mm camera and shoot a number of still pictures [from which the movie will be made] for much less money than it costs to send a fully equipped motion-picture crew to cover the same subject.

It's easier to capture spontaneous realism on location with a small, unobtrusive still camera than it is with movie equipment. Therefore, this method is particularly useful for documentary and news subjects. The movies-from-stills method offers advantages in staged photography, too. Models require less acting skill when you're shooting stills because you don't need to record a complete sequence of action, as with a movie camera, but just a good pose and expression.

For all these reasons, the movies-from-stills technique is one you might care to explore–not only for television use, but also for fund-raising, educational, or business films, and for your own pleasure.

Shooting stills for movies

The basic principle to remember when shooting stills for movies is to *give yourself a wide choice of pictures*. It's usually a good idea to work from a script so you won't leave any gaps. Your coverage should be similar to what you would do for a thorough photojournalistic picture story. Be sure to take enough establishing shots–scenes, exterior views of buildings, long shots or medium long shots of interiors, etc., so you can clearly set the stage for the action. Include plenty of good medium shots and close-ups of the people who will appear in your film. And shoot important actions in step-by-step sequences–you may want to run these pictures in rapid succession to give the effect of motion. Cover all major aspects of your subject matter generously, so you'll have plenty of good pictures when you come to putting the film together.

Keep the principles of *motion-picture continuity* in mind as you shoot. Remember, even though you're shooting still pictures, they will appear in sequence on the TV or motion-picture screen. Be particularly careful to match the lighting in shots you plan to use together. Avoid unexplained changes of costume, props, location, or people, just as you would in shooting a movie.

Producing the film

The next step is to process your film and contact-proof everything you've shot. Go over the frames carefully and make a selection of the key shots–the ones that best tell your story and carry the action.

Next, make your final prints–the ones you will use when shooting the film itself. These prints should be of uniform size to facilitate the subsequent steps in production. Usually, an 11x14 print is best, although this is something you should check with the people responsible for production, if you aren't actually doing the filming yourself. In most cases you probably should make full-frame prints. Any cropping necessary can be done with the movie camera at the time the picture is filmed.

Make your final prints somewhat lighter and softer than you normally would. This is important because photographic prints tend to pick up contrast when copied onto movie film, and again when reproduced on television. To get normal contrast at the end you must start with a relatively flat print–no deep blacks, no blank whites, and mostly middle grays. As we've emphasized, simple, well-defined tonal areas will reproduce best.

Try to match these final prints in quality as closely as you can so they'll produce a uniform effect in the film. An abrupt jump from a dark to a light print or a sudden change in contrast can be distracting.

The success of a motion picture from stills depends not only on how good the stills are in themselves but also on *how effectively they are put together*. You must work out the best sequence for showing them, and decide how long to hold each shot. You also must decide how each picture should be photographed. For example, do you want to begin by showing the entire picture and then zoom in to an important detail? Or would the reverse be more effective–beginning with a detail and then zooming out until the entire picture appears on the screen? Should the zoom be fast or slow?

Another interesting possibility is to use panning, tilting, or a combination of both camera movements. A richly detailed photograph often lends itself well to a pan. For example, you might slowly pan across the faces of a crowd of excited spectators at the moment of a touchdown during a football game.

Camera movement isn't the only way to add a dynamic quality to stills. Skilled cutting from one action picture to another can create a strong illusion that the subject is moving. Another good possibility is to *dissolve* from one still to another. This can create a sense of flowing motion. The effect is particularly lovely if the two compositions have some similarity of shape, tone, or texture. For example, you might dissolve from a close-up of a flower a little girl is holding to a close-up of the girl's head.

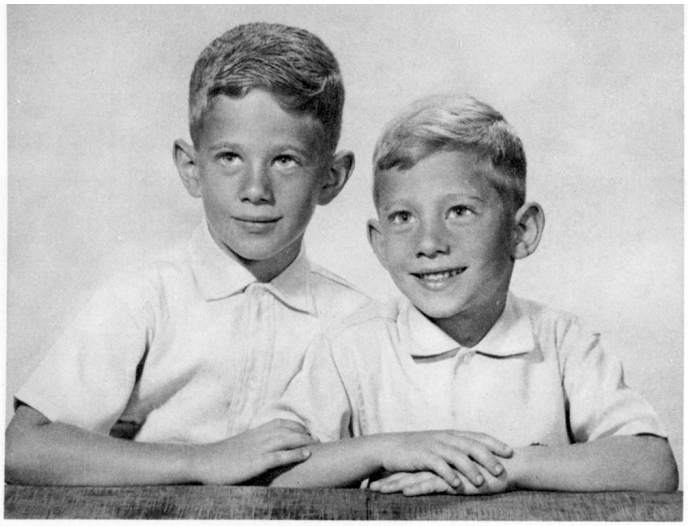
You might combine a photograph with lettered words, as we demonstrated in the titling section of the previous lesson. If you are making a sound film, appropriate music, a good narration, or accompanying dialogue can add richness and realism to the stills.

It is possible for you to do the actual filming yourself. You might use a vertical or horizontal setup similar to the ones demonstrated in the copying section of our lesson on special methods. Some of the more elaborate models of titling stands can also be used for this purpose. They give you very precise control over framing and composing the picture.

For professional movies, it's best to turn your prints over to a production lab that has an animation stand, and let technical specialists shoot the film under your direction. *Plan your shots carefully beforehand.* Put a sheet of tracing paper on each print and add crop marks showing exactly where you want any zoom or pan to begin and end, or which sections of the picture you want filmed.

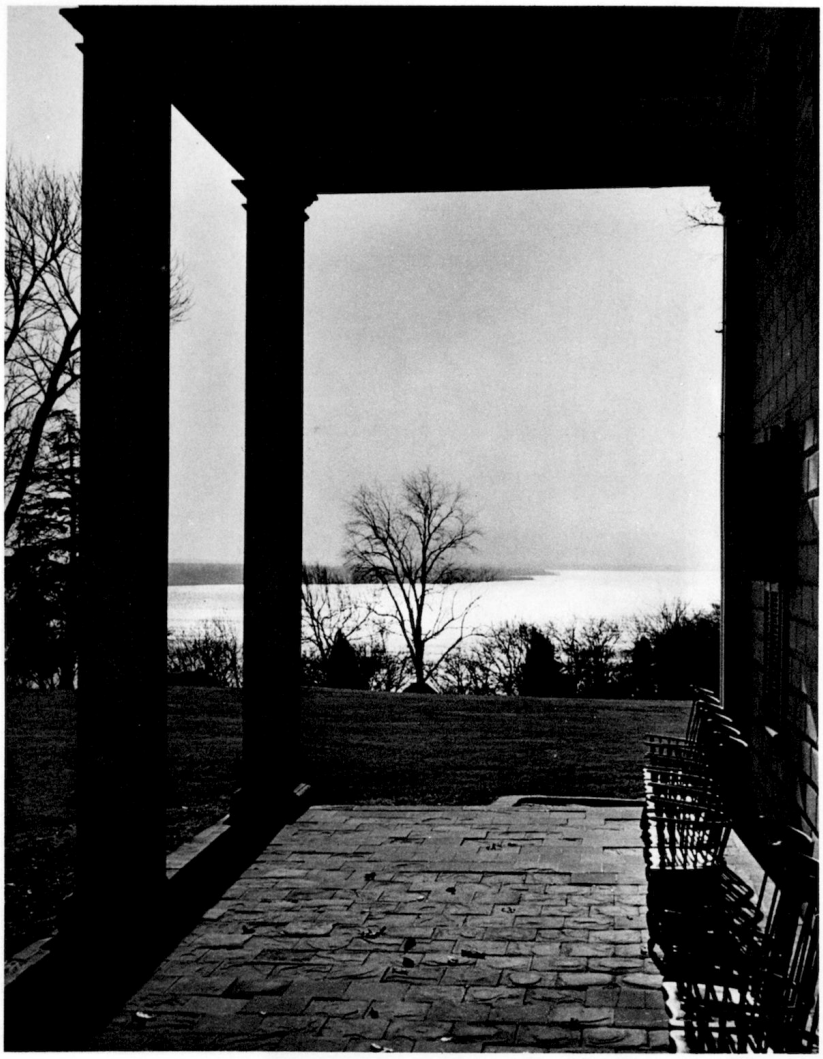
Here are some additional pointers to follow in shooting movies from stills:

- For best quality, use a slow, fine-grained film with good exposure latitude.
- Be sure the lighting on the photograph is perfectly even, with no glare or hot spots. Make a note of your exposure-meter reading, and keep the lighting intensity uniform for all the pictures you shoot.
- Use a camera with reflex viewing or a reflex-viewing attachment [and a close-up lens, if necessary] to avoid parallax error.
- Use the heaviest, steadiest camera tripod you can.
- Be careful not to show the border of any photograph you are filming. It's best to run some tests with your equipment to check the coverage of the lens or lenses you'll be using.
- Use a spirit level to be sure the film plane and the photographs are perfectly parallel.
- Rehearse your shots. For example, decide beforehand exactly where you want to start a zoom, and where you want to end it. Mark the start and end with little pieces of tape on your zoom-control lever.

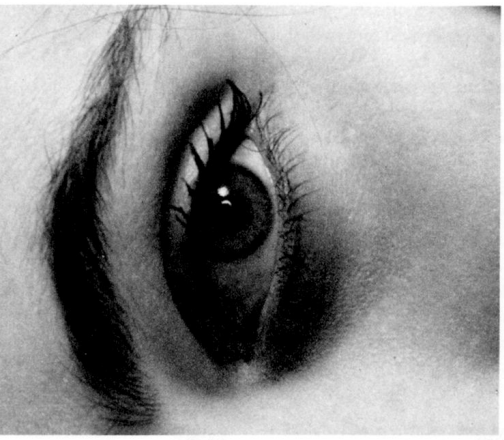


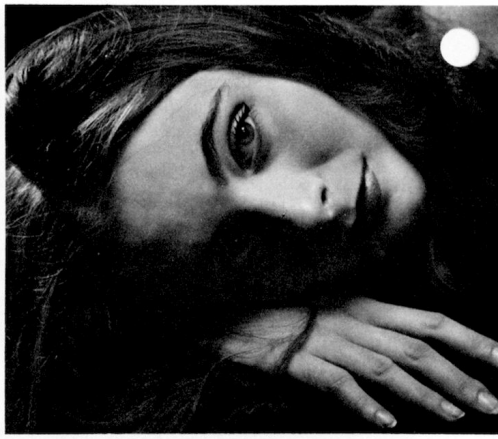
Print quality: In movies from stills, a relatively soft, light print, like this one by Harry Garfield, usually reproduces best. The picture will tend to pick up contrast when recorded on movie film and again when reproduced on television, so avoid strong, intense tonal values. In this photograph, notice there are no very deep blacks and only a few small areas of pure white [in the eyes and on the lips, for example]. The picture mostly consists of well-defined areas of light and medium gray.

If you are producing the movie yourself, make a test print of a typical subject and film it. Study the quality you get on the film and then, if necessary, adjust the contrast and overall lightness or darkness when you make your final prints. If you're working with a production lab, talk things over with the technicians and give them the quality they recommend. [Have a sample print of the right quality in the darkroom so you can match all your final prints to it.]



Zooming into a still picture: With some still pictures you can create a vivid feeling of movement by slowly zooming into the picture area. Alfred Eisenstaedt's serene view of a porch at Mt. Vernon, Virginia, is one that lends itself to this treatment. If you were filming it you might begin with an overall view, as in the shot at upper right, and then smoothly zoom to a tight view of the trees and sunlit river in the background. This would give a viewer the sensation of actually moving into the picture as if it were a three-dimensional scene. The contrast in these illustrations is about what it should be on the television screen–the original prints would need to be lighter and softer to create this effect.
[Courtesy *Life* magazine, ©Time, Inc.]





Zooming out: Sometimes zooming out of a picture can be effective. For instance, you might begin with an extreme close-up of one important detail [an eye, here], and then slowly zoom out to reveal the entire picture, as done with this portrait by Halsman.

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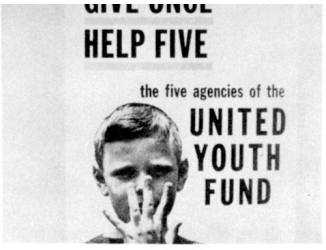
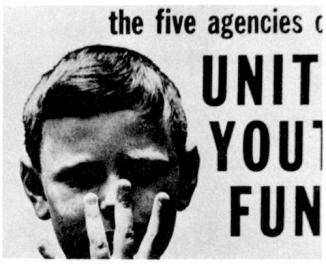
Tilting or panning: Another way of adding movement to a still picture is to travel across the picture area, giving the effect of a tilt, pan, or combination. Move slowly to give the viewer a chance to observe the details as they pass by. The photograph of an African watchtower by Alfred Eisenstaedt lends itself well to this treatment. As shown in the small illustrations, you might begin at the bottom of the tower and slowly move up, progressively revealing the silhouetted figures.

The best way to add this kind of movement is with an animation stand because it allows you *to move the photograph*, rather than the camera, and thus permits you to keep the print perfectly parallel with the film plane at all times. However, you may be able to get a similar effect without an animation stand by tilting or panning the camera. Rehearse the shot and check to be sure your picture is in focus throughout the entire movement.
[Courtesy *Life* magazine, ©Time, Inc.]





Combining words and pictures: Effective short films can be created by combining words and stills. In this sequence Jack O'Reilly used a poster. Starting with an overall view, he slowly zoomed in on the boy's spread fingers, which symbolize the five agencies of the United Youth Fund.
[Courtesy Gray-O'Reilly Productions]

Cutting for movement: The way you cut from one still to another can add a dynamic quality. For example, here is a selection of still shots used in filming the title and credits for a movie. The cut from an eye-level street scene to views looking up and then down and up again creates strong visual excitement.
[Courtesy Trinkaus, Aron, and Wayman]

Changing picture shapes: These shots by Garry Burdick demonstrate another way to give variety and movement to stills. The pictures were planned to make an amusing sequence for a commercial. Some were cropped vertically, others horizontally, and they were placed against a black background and filmed so a portion of the background would show. On the screen, the picture area seems to come alive, changing briskly from a vertical to a horizontal and back.

And now–good pictures!

This Course was designed to prepare you for this day–the day when you set out alone to discover your own path as a photographer.

By now, you should know how to use the tools and techniques of your craft with skill and confidence. We have acquainted you with the various materials and methods commonly used by professional photographers. In evaluations of your assignments we have pointed out what you have done well. We have noted your weaknesses and shown you how to correct them.

At the same time, through thousands of photographs, diagrams, and demonstrations we have taught you the basic principles of good photography. We have shown you many different approaches contemporary photographers take in arriving at creative pictures for visual communication. We have also shown you what to do to achieve the same effectiveness in the pictures you take. And we have tried throughout to encourage and stimulate in you an imaginative, sensitive attitude toward your photography.

With all this background knowledge you should be at home in the world of photography. You should be able to decide eventually on the general direction to follow in your own development.

What should you do in the days that lie ahead? There is only one answer–keep studying, seeing, and photographing. Study magazines, newspapers, picture books, movies, and television so you will be aware of new trends and styles in photography as they appear. Visit photographic exhibitions whenever you can. Keep up with what others are doing.

Above all, learn to be objective about your work. Try to discover your mistakes and weaknesses so you can correct them before others point them out to you. Apply the principles of criticism and standards of good craftsmanship as you have studied them in this Course–for only through objective criticism can you continue to grow as a photographer.

The days ahead should be exciting ones of self-discovery. And they will be if you keep in mind one thing that we have constantly tried to make clear throughout your Course. There is no *one* way of creating good pictures. Every photographer must work in his own manner, and he will eventually, through experience and experiments, develop his personal way of seeing and making pictures.

However seriously you take your work, learn not to take yourself too seriously. Even for the master photographer, there is no final goal. One discovery leads to another–each achievement suggests a possibility still more exciting. Photography is a road on which getting to your destination is less important than what you discover–and become–along the way.

Wonderful days of growth, change, and discovery are in store for you. Make the most of them. We promise you that there will be no dull moments for you in the years ahead if you embrace your craft freely –with a sympathetic and inquisitive attitude toward all new trends and directions in photography.

And now–good pictures! We sincerely hope your work with us eventually will bring you rich personal rewards and emotional satisfactions, and that you will become the photographer you want to be–with your own full share of success.

Technical notes on the photographs

Page 2

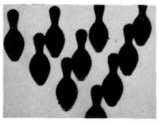
Victor Keppler; Hasselblad with a 150-mm lens; Tri-X film; 1/10 second at *f*/11; one 500-watt spot mainlight plus one No. 2 photoflood bounce fill.

Page 8

Irving Penn; 35-mm Mitchell with a 50-mm lens; black-and-white negative film; two floods.

Page 8

Irving Penn; 35-mm Mitchell with a 50-mm lens; flood, spot backlight, and illuminated signs.



Page 8

Irving Penn; 35-mm Mitchell with a 50-mm lens; black-and-white negative film; bowling pins and ball photographed on a sheet of translucent plastic illuminated by bounce floods from below.

Page 8

Irving Penn; 35-mm Mitchell with a 50-mm lens; black-and-white negative film; single diffused 5,000-watt conelight used for girl's face, two floods for bottle cap.

Page 11

Jack O'Reilly; 35-mm Mitchell with a 75-mm lens; Plus-X [negative] film; *f*/3.2; two floods.

Page 11

Jack O'Reilly; 35-mm Mitchell with a 28-mm lens; Tri-X [negative] film; *f*/22; three 750-watt spots with barndoors on background, one 750-watt spot with snoot on subject.

Page 11

Jack O'Reilly; 35-mm Mitchell with a 40-mm lens and medium yellow filter; Plus-X [negative] film; *f*/11; one 750-watt mainlight, one diffused fill, six inky dink spots left and right to create highlights.

Page 11

Irving Penn; 35-mm Mitchell with a 50-mm lens; black-and-white [negative] film; one 5,000-watt conelight.

Pages 16-17

Bert Stern; 35-mm Mitchell with 25-to-250-mm zoom lens; Eastman color-negative film; settings of *f*/16 and *f*/22 throughout; lighting equipment included a 10,000-watt spot with barndoors, a 5,000-watt conelight with diffusion screen, and a foil-covered cardboard reflector.

Page 19

Irving Penn; 35-mm Mitchell; lenses from 28-mm to 3 inches; black-and-white negative film; girl's face lighted with one diffused 5,000-watt conelight, falling balls photographed against a sheet of translucent plastic illuminated from behind with bounce floods.

Page 21

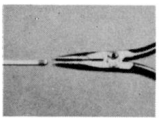
Jack O'Reilly for Celanese Corporation of America; 35-mm Mitchell with a 38-to-150-mm zoom lens; Plus-X [negative] film; *f*/5.6; daylight plus flood fill.

Page 21

Jack O'Reilly; 35-mm Mitchell with a 35-mm lens and G-15 filter; Plus-X [negative] film; *f*/4; daylight with one reflector.

Page 21

Jack O'Reilly; 35-mm Mitchell with a 40-mm lens and No. 5 neutral density filter; Plus-X [negative] film; *f*/11; daylight with one reflector.



Page 23

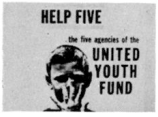
Trinkaus, Aron, and Wayman; 16-mm Bolex with a 75-mm lens; Kodachrome Type A film; single-frame exposures except for frames of match igniting, which were shot at normal speed; two floods.

Page 23

Trinkaus, Aron, and Wayman; 16-mm animation stand; black-and-white negative film; cut-out photographs pasted to black cardboard and arranged to produce different designs.

Page 27

Garry Burdick; 16-mm Bolex with a 75-mm lens; Plus-X [reversal] film; *f*/11; single-frame exposures of variously cropped stills; two floods.



Page 27

Jack O'Reilly; 35-mm Mitchell with a zoom lens; Plus-X [negative] film; *f*/8; two floods located at left and right; zooms from 40-mm to 150-mm.

Page 27

Trinkaus, Aron, and Wayman; 35-mm animation stand; black-and-white negative film; constant movement–pans, zooms, and dissolves–throughout entire sequence, single-frame exposures.